5th Archbold Expedition to
New Guinea

1956
March 4. Left Idlewild Airport, New York at
9:10 AM on TWA flight 35 (Constellation 6
plane). Bright ~~clear~~ clear morning after a rainy
night.

Arrived Chicago in 3½ hours. Fair amount of
snow on ground back from the coast. Much ice on
Lake Erie.

The 8¾ hour flight from Chicago to San
Francisco, against a very strong wind. Arrived
in SF after dark. Had limited views of the Rocky
Mts. in vicinity of Cheyenne. The Sierras
showed from near Reno, almost entirely clouded
over. San Francisco temperature very mild
after the east coast. Most men walking the
streets without topcoats.

Left for Francis Drake Hotel

Mar. 5. Left San Francisco 11:10 am on
Qantas flight 737 (Super Constellation
plane ("Southern Moon") Arrived Honolulu
8:05 Pacific Coast time, 6:05 Honolulu
time. (Much lei)

Of 51 passengers from S.F. only four
plus from, in Hno, from Honolulu are
going on to Sydney.

"Transit" passengers had a good dinner
at the Hotel Edgewater (on Edgewater). Took
off at 10:10 pm. Had trouble with the inboard
port motor a few minutes after take-off
& just barely for a good landing at 6:00

Coming in for a landing at Honolulu, we flew through swirling dark rain clouds over the top of the island. A wild sight. Very narrow ridgebacks. Very narrow deep valleys. All green and rain-drenched in the late afternoon light.

Dr. G. Linsley Gressitt, entomologist of the Bishop Museum, boarded plane at Honolulu. Going to Cairns, N. Queensland, area for a week, then on to New Guinea & the Solomons for 4 months. A specialist in beetles, Gressitt was in the Wissel Lakes & Central Highlands areas last year. This year he will work mainly in the Bokondilla area in Papua, & on ~~the~~ New Britain, & Bougainville & Guadalcanal. George Brooks will help him at Cairns. I have given him a letter of introduction to Gilbert Bates.

March 6 – 7 (Crossed international date line) Arrived Canton Island, Phoenix Group, at 8:30 am. Distance 1912 miles. Met there Krauss, U.S.D.A. entomologist returning to Honolulu after a vacation collecting visit to Tonga & Fiji. Also Mrs. a trained entomologist from Kansas, married to an FCC official on the island, & also U.S. post mistress of the island.

Canton is a low atoll, dry & desolate & much disturbed by bulldozers. Said to have been no rain for 15 months. Rain water cisterns are dry. Distilled sea water the only remaining supply. The sparse plantings of littoral shrubs & coconuts are slowly browning off & dying.

Left Canton 8:55 this time, after refueling, & a short jeep ride with Mrs. B., Krauss & Gressitt. Arrived Nadi, Fiji, at 1:30 Canton time; 1273 miles. We left Honolulu with the idea of by-passing the

the south of Fiji to avoid a hurricane, but later had an all-clear from Nadi. The wind had not risen above about 60 mph there, but 17 inches of rain had fallen within 48 hours & the streams were pouring great quantities of red water into the sea. Whenever I saw it, this red water was within the barrier ~~reef~~ reef which lies close to most of the coast. Nadi very hot & humid. Flood waters & perhaps wind had flattened a fair acreage of sugarcane.

Left Nadi 2 PM Fiji time & arrived Sydney 9:30 (7:30 then time); distance 1878 miles. Staying at Wentworth Hotel. Old place modernized to the extent of private bathrooms; apparently a Qantas hotel.

Sydney has had much rain from the cyclonic disturbance. Muggy & rather hot for Sydney.

Our ship carried a crew of eleven including two captains & two first officers, & we had only 12 passengers upon arrival in Sydney. We had only five through passengers from San Francisco.

Transpacific flight: 7581 miles, 27 hours 40 min. Qantas runs a very good service. There is not the spit & polish of Pan American, but so far as I could see efficiency is on a very high level, & arrangements for passengers very complete – down to a buttonhole in the napkins.

Thursday Mar. 8. Left Sydney 9:30 AM by TAA DC-3, stopped down at Newcastle, & got to Brisbane 1:05. Flew over solid clouds much of time. Rivers high with big rains from the cyclonic disturbance. Townsville, Cairns, & some places in Gulf of Carpentaria have taken a bad beating. Wind & flood have done much damage to the sugarcane crop (harvest begins in two months).

Was met at the air terminal in town by Denis Williams, Burnings Brisbane agent. Later, we both went to the Income Tax Office (for tax clearance for New Guinea), Migration Office (for alien registration), & Burns Philp & Co. for information on ships & planes to Samarai, mainly concerned with cutting formalities for Rex Peterson if he should have to make a quick get-away upon arrival.

Rex's ship, Pioneer Gem, is expected at present to arrive March 31, which is a Saturday. He can take plane that night for Port Moresby or on April 1st. & be in Samarai by an April 3rd. Failing that, the next scheduled plane for arrival in Samarai is April 17. No boat from Brisbane is expected before that time.

Every person leaving Australia for New Guinea (or anywhere else) needs an income tax clearance. As we have special visas from New York, we don't need the usual permits to leave Australia & to return to Australia from New Guinea. We can pass through Australia without registering as aliens, but we must register in Samarai (our expected stay being over 60 days). There has been a conflict of opinion on the registration business, & this has taken up most time.

Friday, March 9: Confirmed my booking with Qantas through to Port Moresby. Tried to trace a valued pocket knife lost yesterday on the plane or in a taxi, got my income ~~tax~~ tax clearance, also tax clearance for Rex. The officials concerned have made concessions & Rex is now documented for immediate departure for New Guinea when he arrives in Brisbane.

Visited the Queensland Herbarium in what was left of the morning, & in the afternoon the Queensland Museum. The Herbarium – what I saw of it – still an untidy fire hazard of a great amount of ~~unaccessioned~~ material in brown paper bundles & Merrill cardboard boxes – a lot of it unaccessioned & undetermined. Everist's table had not been cleared off for months, by the look of it. He spoke of improvements since he became Govt. Botanist nearly two years ago, but the only obvious one was a repainting of the interior. Everist & second junior assistant do the routine identification & agrostology, weed control, etc., leaving Stanley Blake & Lindsay Smith free to spend most of their time on taxonomic work. Blake is finishing off a revision of Melaleuca & is working on Pleiocnemia, & a honey flora of SE Queensland. Smith is the main forest botanist. Everist has prepared for official approval a handbook of the Queensland flora to be prepared by Blake & Smith in 15 years. One of three new woman graduate assistants is working as librarian & is cataloguing & rearranging the books & periodicals. Everist feels his own importance, but he is a live wire.

At the Museum the same old Cauthers order prevails under Frank Mack's directorship. His only scientific assistant is Woods, a young geologist & palaeontologist (M. Sc.) who has been there three years. Oldham, previously of Papua, has been appointed photographer within the last year or two & a darkroom is in process of being fitted out. Since 1953 two or three reptile cases have been installed, & a new lyre-bird semi-diorama. The preparators need training in modern techniques.

Brisbane now has a 400,000 population & street traffic has increased greatly in the past two

There are not many traffic lights & the average driver has no thought of giving a pedestrian a break. It looks as if Australians will continue to be a lean, agile people. A very few big cars are seen. Mostly they are the small Holden, made in Australia by General Motors & Australian capital. The taxis, too, are very small. There is little room in them for baggage, so the driver puts your bags in the trunk, & charges extra for it.

Yesterday I had a heart-warming experience in Sydney. I had had to bring my own bags downstairs at the hotel. The morning was slightly hot & muggy & I was uncomfortable in a suit I had worn all the way from New York. Took a taxi to the TAA air terminal, then an Ansett (free) bus out to the airport. Was part way out on the bus when I realized a new Leica M3 camera I have from the National Geographic was missing. I had been carrying it looped over my shoulder & thought I must have left it on a leather couch at the air terminal. A call from the TAA office in the airport brought the information that the camera had not been picked up there. Then I saw my taxi driver of earlier in the morning. Three times after me, he found the camera on his back seat, tried to find me at the terminal, then drove out to the airport. He did not want to take the $20 I gave him.

Sat-Sunday. Spent on a visit to brother Eric at Ipswich & overnight at Aunt Sera's at Toowoomba. Back in Brisbane ca. 9-10 PM Sunday. Much rain & mist in Toowoomba. Country saturated with abnormally high rainfall all this year. Springs breaking out through the pavement of streets in Toowoomba.

Brother Allan drove down from Yalboy to see me.

Monday Mar. 12: Newspapers here have much to say about the weakness of Sir Anthony Eden, & Mr. Butler's gallivanting while the Arab-Israeli situation darkens. But most of the criticism is done with a light touch which might be deceptive to a stranger. The flavor of the radio, too, is different from that of the U.S. & some things seem a bit incongruous: Glaring, from a local station before breakfast today: "Save shillings on tinned fish at Woolworths!" "Pinnacle bra that lifts you to lovelier heights." Yesterday, crowds of teenagers & others waited in the rain at the airport to see the arrival of what one paper calls "my-and-coma crooner" Johnnie Ray, from the U.S.A. Today the town is at the feet of the "American Wool Princess," Diane Patrick (from cotton-growing South Carolina), who is here with a team for Wool Week.

Most of day spent on business in connection with my Mother's estate.

Called on A.C. Gibbin, manager of Australian Estates, & B.N. Peters of Cotton Branch, Dept. of Agriculture & Stock. Gibbin reflects the happy financial position of the cattle & sheep men. Peters said the proposed dumping of U.S. surplus cotton has knocked the bottom out of the market for Queensland's small crop, which is sold to spinners in southern states. The spinners have stopped buying. The industry here uses nothing below the grade of "middlings", while in the U.S. a grade lower is acceptable.

Spent the evening at sister Edna's.

Tuesday March 13: Wrote letters, did some shopping, & worked out ration lists for New Guinea.

Stopped awhile to see a demonstration of sheep shearing in front of the Town Hall. A replica of the interior of a small woolshed was rigged under an awning before the august entrance. Two men shore with machines, and an elderly man with

old-fashioned blades. The shearers caught their sheep in regular pens. A roustabout carried away the wool & kept the floor swept. The fleeces were trimmed & graded by a wool classer in white smock. Presses baled the wool on the spot. Only a few people were interested in watching this good Wool Week show.

Wed. March 14: Australia seems to have practically abandoned the use of strong brown paper in this carton age. After trying in the town to get some good paper for wrapping some artifacts Jim presents to Tamarai, I had to scrounge some from the Govt. Botanist. Then sending some old "issues" to Tamarai for shipment to U.S. at end of expedition.

Day spent in calls to Queensland Herbarium, morning tea with the W.D. Francis's & Mrs. C. T. White at Kangaroo Point, lunch with sister Edna, packing artifacts, & evening with Eric & Reba Humphries at Camp Hill.

Letters in from Gusty Miller, Norman Byod of Woomanby Pd., & Reg Neale of Woodlark Pd. Our cargo should reach Tamarai on transshipment from Port Moresby by the SOOCHOW about the end of this week (it left New York Jan. 15). Byod offers every assistance & so does Neale. The former works of caves to NE of Tawa Bay with bats "like the grains of sand and big stink", according to native report, which is encouraging. Neale wants us to live with him at his place at 600 ft. in the hills near Kulamadau, near which are caves full of bats & human remains. Neale offers boat transport & all the native labor we need, including a good boss boy. Byod feels we might have trouble in getting carriers on Woomanby.

Thursday March 15: Day spent on final errands, a second visit to the Museum, & lunch with Denis Williams at the United Service Club.

Rus' ship, the Siemen Sem, is still scheduled to arrive in Brisbane April 1st, but the agents say

probably is more likely to be the 3rd. Bookings for him have been made by Qantas for departure for Port Moresby 11:45 PM April 1, & by steamer Lockhow scheduled to leave March 29 but expected to be some days late. Further than this, matters are in the able hands of Denis Williams in Brisbane. I will cable him from Port Moresby when I find out the local situation as transport possibilities on to Tamarai. There are five planes a week from Brisbane to Pt. Moresby, but only one regular plane per fortnight on to Tamarai. The Lockhow usually takes about nine days to reach Tamarai via Pt. Moresby.

The weather here continues showery & not so uncomfortably hot as when I arrived a week ago.

Port Moresby

Friday 3/16/56 Left Brisbane at midnight last night on Qantas "Bird of Paradise" DC 4, stopped down in Townsville, & arrived in Cairns 5:30 AM — will before daylight. There to meet me were the Gil Bates, Gregg Brooks, Tom Webb, Ernie Stephens, & Alf Reed. Mighty good to see them all. The recent cyclone blew up to 93 mph in Cairns; very little rain, about 30% of the sugarcane crop flattened, & losses will be heavy. The roof blew off the Bates house, but there being hardly any rain, damage to possessions was small.

Left Cairns 6:30. Grissell boarded plane there. Arrived Port Moresby 9:10 AM. Smooth flight. Was met at the airport by Fuller, 2/c Forestry Department (Mr. Adam is on leave), & then to meet Grissell & me were Spent-Swani (entomologist), & Ken Tyler (animal ecologist, with main interest in herpetology) of the Dept. of Agriculture.

Day spent on visits to govt. offices, under the wing of Fuller, who came here from Queensland only last January. First called on Wilson, Assistant Administrator, then Don Graves in District Services (formerly A.D.O. Tamarai), Lands Office for maps (Mr. Jones), Dorothy Thaw

(Plant Pathologist, who visited us in Florida last year).
& Grahamstaw, Chief Collector of Customs.

Cordial reception everywhere. Government will be helpful. Wilson, a new (ca. 1 year) appointee, a very quiet man. ~~Grahamstaw~~ Grahamstaw (known to me since 1925) showed me a special ordinance which, after the fuss we had with Customs duties in 1958, was passed to permit the free entry of equipment & materials for scientific purposes. We submit a written request under this ordinance.

Spent some time at the Forestry Dept., looking at air photos of the mountains of Ferguson Island. It is extremely rough country for the most part, broken by great joint-line precipices. The highest peak (6800-ft. Mt. Kilkerran) looks especially difficult, & there is not much more forest on a summit of very limited scope. Mt. Maybole (5615 (on board on some maps) offers more scope & much more forest, & looks a better proposition, with approach from Ferguson Bay. There appears to be a small patch of grass on the very summit of Kilkerran.

Spent some time with a refugee Hungarian now an Australian citizen. Primarily a lepidopterist, but evidently well grounded in geology in general; a man of very pleasing, open, but strong personality, & apparently very good mind. Held several fellowships in various parts of Europe ~~& when World~~ & was out of his home country when it became involved in World War II. His wife & daughter still in Hungary.

Mar. 17: Mr. Bank of N.S. Wales, Manager. Gavin told me about the strike of petroleum gas we heard about in the U.S. a couple of months ago. This was at KEURU, Oranmia River. This belonged to Australasian Petroleum Co. Was being drilled by an American contractor. Much trouble at start of bore. When trying to make up time, & not taking proper precautions, the gas was struck unexpectedly at 990 ft. (The first bore in this area). Great flow. Bore was capped, & the gas blew out in several places close to the bore. An expert flown out from the U.S. had a look at the situation, then went home. An oblique hole is now being drilled to tap the gas & reduce pressure in original hole. Govt. has sent out two

district officers to determine native land ownership in the Kieum area. Oil company doing a hydrographic survey of coast & rivers. The which thing looks very important.

Sat. Mon. 17. Talked at Steamships Trading Co., when I met Mr. Mitchell & inquired about the possible sailings of the Tovachow, which left for Tamami this afternoon with our cargo (ex Simon Ruf from New York Jan. 15). Talked with Arthur Davis at Bank of N.S. Wales (see above).

John Womersley, Forest Botanist, arrived by air from Lae in morning. After lunch, with two young men from his department, we drove first to the Brown River, then to Bouna Falls. Some nice forest, which John calls intermediate between rain & monsoon forest, in Brown River valley on flat land said to be of deep alluvial soil. Some cutting being done. A good small survey of teak (Tectona grandis) on river bank, where there is a forest survey camp.

Road stops (formed & gravelled road) at the Brown, where a bridge is in early stages of construction. A motor track goes on to the Vanapa River. Long term plan is to carry the road to Bulldog, Tokikamu River, to connect with the now abandoned wartime road which came over the central range from Lae (or Nau).

Port Moresby's present water supply is pumped from the Tokiki River; said to be sadly inadequate when river is low in dry season; pumps also give trouble. A hydro power installation about to be built some miles down the Tokiki gorge from Bouna. Concrete flume from foot of the falls already finished, & the transmission lines (3 wires) from the power plant site to Pt. Moresby. Hornibrooks are the contractors for the generating plant; transmission line built by Commonwealth Dept. of Public Works.

A British aluminum company is still on a hydro survey of the western rivers which was in progress in 1953. Said to now be somewhere west of the Purari.

Sunday March 18: Day spent on an excursion to Mt. Marivola on the Mokolabe Range. Left Pt. Moresby about 9:30 & returned about 6:40. Traveled in Administration vehicles: a Humber touring car, a jeep, a land rover, & a big jeep-like thing made by Austin. Personnel, besides myself, Tim Gressitt, Eric Brown (entomologist from the Solomons, specially interested in Hemiptera & water insects), Dorothy Shaw, Joe Tyani-Swamy, Gabriel Kelemy (Plant Introduction Officer, & another Hungarian), Ken Hoden, Bill Reed (Fisheries officer), John Womersley, & our host, Vince Saunders. Saunders has a lease of 640 acres plantation land where Burns Philp & Co. had a coffee plantation said to have been abandoned in 1908. He also has a licence to cut timber on 3500 acres, mostly open Eucalyptus forest. Rain forest in gullies, including an extensive body in the west, narrow valley of MARIGOGO Creek.

Left the Humber on the Tagari road above Bouma Falls. Continued in other vehicles to a ford & camp on Marigogo Cr., thence up the slopes to ca. 2200 ft. near the top of the range, where Saunders has a second camp. Walked from there to ca. 2400 ft. at the nearly treeless area that was the coffee plantation; then forced back, drenched by heavy rain.

Left the lower camp on the Marigogo, collected Torrenticola on submerged aforementioned rocks & living tree roots. Alt. ca. 1500 ft., fide Saunders. Photographed Dendrobium forbesii at ca. 2000 ft.

The Marigogo stream flows into the Tolokiri River not far above Bouma Falls. Eucalyptus tereticornis the principal tree of the open forest; E. confertiflora abundant locally; "Tagari red gum", probably a form of E. alba, also present. Casuarina papuana? common locally on savannas & in the gully rain forest. Dacrydium & Dacrydium papuanum (?) also in savanna forest. Womersley saw Podocarpus in gully forest at 2200 ft.

Mond. Mar. 19: A very hot day, spent at Konedobu & doing business in town. Trip of Gilbert Fervier, a whaleman the department is called after a recent reshuffle of the Administration, had no information on any of the islands we wish to visit. Henderson, Acting-Director, Dept. of Agriculture, was as cordial as it seems possible for him to be. His regards

permits, we go ahead & collect what we want. On termination of the expedition, we radio Agriculture, P.P. Moresby, particulars of collection. Agriculture will arrange with Customs for an export permit.

Julius, Govt. Anthropologist, did not say outright that he wanted duplicates of anthropological materials. At end of trip we send to nearest A.D.O. list of items collected, with localities; A.D.O. will advise anthropology, & permit & export will be issued from there.

Picked up 1 mile maps of Misima & Woodlark from Lands Dept. (free of charge). Made a personal call on Claude Champion, who is now Assistant Director, Dept. of Civil Affairs (part of what used to be District Services Dept.). Ivan Champion, Native Lands Commissioner, was away in Rabaul with a U.N. inspection party.

Registered as an alien (with Customs Office). Submitted to Chief Collector of Customs Johanstone a written request for the duty-free importation of our equipment & supplies.

Bronie Ryan of B.P.'s told me Friday that Bob Tarr-well, of "Tarr Air" would be willing to delay his flight to Samarai on Friday April 6 to meet Ron Peterson on the Qantas plane arriving from Brisbane. Tarr will wire Peterson for a lift with him, but the meeting depend to be in town the afternoon, & I arranged with Bob that if the meeting did not work Denis Williams that Tarr Air could be expected to meet the April 6 plane if necessary.

Davis of Bank of New South Wales took me to the Japuan Club after office hours, & then I met old-timers James, Frame, De Groen, Trist, etc.

Tuesday March 20: Out of bed at 3:45 AM, breakfast at Qantas mess, take off on an old PBY 2 at 6 o'clock. Arrived Samarai 8:10. Higher peaks of Main Range obscured by black clouds, & we flew through showers much of the way. Much vegetation on cliffy coast of east end of mainland browned by spray from recent high seas.

In Samarai, our cargo is in Customs bond. Bentings have Lionel Connell lined up as transport man. Our boys from Ferguson & Goodenough

islands are due to arrive about the end of the week.

Discussed our plans with Clifton-Barnett, acting District Commissioner, who looks & acts more like a clerk than a field officer. He knows nothing about the islands, & could not turn up any useful patrol reports on Ferguson Island, our chief subject of discussion. He will contact L. T. M. Rutledge, A.D.O. Esa'ala, & suggests that I write to him.

Our ~~first~~ first remittance of £5,000 (£2215-0-1) has arrived at Bank of New South Wales. Bank manager is M. L. Y. Hebden.

Bob Bunting has sold his house. Dusty Miller's guest room is occupied. I am staying at the "Guest House" run by Mrs. Hanson. Very crude. No sinks or wash basins in rooms. No water in one of the two common bathrooms. No hot water. But the food seems good.

Had dinner with Dusty & Melba Hall. Cliff Brennan, visiting insurance man, also there, & Mr. Gribben. Gribben has recently opened a trade store at MAPAMOIWA.

Samarai

Wed. March 21. Rain from about 3 AM to noon. & thick weather after that. PBY Catalina was prevented from coming on a flight from Rabaul (with U.N. delegates) to take to Port Moresby a woman (Mrs. Bruce Hamilton) dangerously ill with a gangrenous leg.

Engaged as transport man at £70 a month Lionel Bennett, Papuan born & reputed to be a good bushman & linguist. We knew him as the master of a small ship in 1953. He starts April 1st.

Most of day spent on paper work — going over maps & notes with Lionel, letter writing, etc.

Met at guest house Bruce Hamilton, born on Woodlark Island, author of "Folk Tales of the Tuggie Muggies," & now manager of Gili Gili plantation. Rather drunk, & not well thought of in town, because of neglect of family. He gave me an autographed copy of his book.

Thursday, Mar. 22: Weather wet morning. Then lifted writing. Formal application made for release of our cargo from bond. Kelly, Customs man is in measles quarantine & Paul, school master is acting Collector. No radio about the cargo went to P. Moresby yesterday.

Talked by radiophone with Bernie Ryan of B.P. in Moresby & had confirmation of an arrangement for Tom Otto to meet Mrs Peterson's plane on April 6 — if Mrs arrives in Moresby then.

To dinner with the W. Coltrell — Loomers (Dept. of Agriculture). Pleasant evening at their house on south shore of island. Loomer was formerly director of the department in P.N.G. Has had experience in Malaya & Tonga. Has two assistants in Samoa. Doing much planting of pilot plots of coffee — mainly arabica, some robusta. Runs extension courses for native natives from as far distant as the Sepik. Also concentrating on the growing of dry rice as a native food crop. Mrs. Loomer is a sister of Mick Healy.

Loomer spoke of Woodlark Island as having a rich & in some ways peculiar flora, with similarities to country about SALAMO, on Ferguson Isl.

Friday, Mar. 23: Still somewhat rainy in AM; breeze continues SW; heavy dark cloud over mainland mountains.

Cargo released & moved into Bentings' bulk store, in same position as 1953. Have 14 of the 17 crates unpacked. Bentings have loaned us two good boys.

Talked at Coltrell-Loomer's office & he loaned me copies of his reports on Woodlark Isl., etc. D.C. Clifton-Barnett loaned me Tarram Study 34 on the Louisiade Archipelago.

Samoan weather is sultry, but temperatures (82°F. max. today) are not too oppressive except in Bentings' bulk store, where I sweated copiously today.

No news arrived at guest house today was a Tonga,

April 30. Left Naikauna at 7.15 with 18 men. I reckoned about 35 loads, including mine for carriers, but Lionel is not a person organizer and fortunately, more carriers offered than were needed. Some carried light loads. Tight were from SALLATAITAI on the east side of the island.

LEBUDOWA River reached at 7:30 (about 1 mile). Crossing it four times, we started up a long steep slope & reached Teddy Ballantyne's former gold workings on BUATAI Creek at 9.20. Alt. 250 m. Two forms of birds of paradise (P. decora) a little below this. Here well manured tall rain forest. Creek very bouldery & with moderate fall. Stopped over an hour & had drink of tea which the carriers cooked rice.

10.45 Moved on (alt. 280 m.) up creek a few hundred yards then fairly steep climb in places but slopes generally gradual.

12.20, 550 m. Forest of smaller trees in which Dacrydium appears; many surface roots; scrambling slender bamboo & a climbing Nepenthes. Rain forest.

620 m. First oak noticed in the stunted forest (it was cut by Gray a week ago). Slender tree. Not a change to regular mid mountain forest.

650 m. Dipterocarp conjugate growing beside a 30 ft. Dacrydium which Fred & Lionel climbed to view Lewa Bay on their reconnaissance.

660 m. Distinct change to stunted forest of Dacrydium & small leaved angiosperms. Much Sphagnum on ground, scrambling Hypolepidium ceramum, a bladder-wort growing in moss on one tree.

780 m. Rockout Knob. Forest & a small steep bottle. Many palms & a change to good tall forest mark camp site about ½ mile ahead. OBIA prominent to right.

710 m. Dacrydium forest ended a a steep small rocky stream.

2.15 (I). Camp reached. Lionel, most of our over boys & a few last carriers ahead of me. Alt. 790 m. Temp. in

PABINAMA Mountain in what appears to be full "mossy forest". Forest composition still to be seen. Also epiphytic red Rhododendron flowering on edge of camp clearing. Alt. at 4:30 7100 ft. Some mist from mid afternoon onwards.

Two flys & bivs both rigged; a palm shelter for cook house. Good level ground. A little more clearing will open up a good view of the coast & the S. edge of Goodenough Bay on the mainland. Lieut & Zid did an excellent job in opening up a route from Ballantyne Camp & picking the camp site.

On their recce. both Lieut made camp altitude 7800 & Zid 7770 ft. They seem to be only a few hundred (50-700) feet below the summit of the sharp-topped Lamba mountain OBIA (8400' on the 1-mile map), so our altitude is probably about what Gray made it — say 7700 ft.

Tuesday May 1st. Continued light rain before dawn. Nothing later, into evening (7:30).

All hands spent most of day in preparing this PABINAMA Camp. Digging latrines, making water tables of sticks & split palm, etc.

Tamans given breakfast of rice, paid 7/- each, & sent back to their villages. Sent with one of the three escaping councillors a letter to Norman Spell, posting him as missing.

Did some botanizing in afternoon. A common small tree fern (Cyathea), 4 tree sp., etc. collected. A Xanthoxylum (a ~~Brachyacanthum~~ Brachyacanthum) fruiting plentifully in the forest, indicates that this is what I have called "mossy forest". Forest canopy at camp about 16 ft. high, thoroughly small-leaved trees.

End of my part typed by

About 115 bats out this evening. Several Pteropus calling around camp. Terr. shot fired at a small bat frequenting a small-leaved tree with acid white fruits common in the forest (Myrsyncha?)

Wed. May 2: Very light showers in afternoon the only rain. Mist towards evening, also before daylight (5 AM) but stars & moon shining through.

Went up the slopes of PABINAMA to the end of the cut track at 805 m. (alt. in camp when I left 780 m.). Then cut to crest at 825 m. (later 840 m.). Climbed some trees on the south of the crest. Of mixture of Nothofagus & other broad-leaved plants with Weinmannia & Syzygium conjugata, a great erect Gleichenia was found in 1983 on Mt. Bagman & Goodenough Rd., & probably above it on the S. slopes an open stand of Dacrydium stunted to 3-5 m. Of filamentous red fungus? conspicuous on branches of the conifers.

Clouds obscured distant views from the crest, but got a glimpse of the BUNAIMA promontory. Mt. OBIA bore 228° magnetic; a southerly peak appearing about equal in height was 140°. Sounds of an axe, probably in camp, 305°. North end of NUMAKATA Island 185°.

The beach was a good find. Collected were several trees of the mossy forest unfamiliar to me. An abundance of slender scandent bamboo in forest generally of open canopy, probably as a result of damage by hurricane winds years ago.

Rees followed the track in the afternoon & now hopes can get up to the crest. Mammal signs (?) include uprooted yellow clay under moss-covered tree roots, & what look like runways. Much shooting into the white-fronted tree last night: 2 Nyctimene.

Thursday May 3: Mist on & off a good part of day after 9 AM; some small showers noon to 2 PM.

Botanized down the track in the stunted, open, heavily mossed Dacrydium forest. The conifers only 3 m. high at most; Rhyncocedrus & Hydnophytum (very stout specimen) common its branches. Of Telephytum, in

flowers, was plentiful as a tree 5-6 m. tall. A Nothofagus there also; not seen in quantity, & seemingly different from the one found on top yesterday. Another Nothofagus there too, looking like N. nitida & having the mossy flowers as a characteristic of that wide-ranging species. A broken sedge (#25 (SL)), with green stems usually several meters long, a nuisance in this forest; a slender, tall, sharp-edged Telesia also.

Climbed a Saxifrage at ca. 750 m. & made photos of Mt. OBIA. Lionel took some bearings from camp: Duchess Island 302°, Annie Dulci Island 242° magnetic. Saw the weekly PBY 2 in flight toward Samarai.

Saw brilly gray, short-tailed Rattus, apparently different from the lowland species, caught in traps.

Lionel's boy, sent down the slopes to shoot for the pot, returned with one blue pigeon & an old male Paradisaea decora. The paradise bird prepared as a skin by Ron.

Friday May 4: Occasional clouds down on mountain from about 8 AM.; showers, some heavy, about 11 to 4 o'clock. Clear starry night (8 PM).

Had some trees below camp cleared today to give view of coast: Great typhoons including islands off Deva Bay coast, West end of Ferguson, & all the peaks of Goodenough. Lionel at dusk tried to signal two small vessels in sight; no response.

Botanized in a small creek less than ¼ mile on the steep slopes to the SW toward OBIA. Nice lot of ferns including Vandenboschia, Leptopteris, & a second Cyathea for the locality. Two very interesting small rubiaceous trees, one with curiously enlarged calyx & fruit & long, fragrant white flowers.

Saw grey Rattus in traps, a Nyctimene shot last night, & a Zoborana from a mossy tree today by Lionel.

End of many 2d typed pages

Taking more plants than I can dry with me. Picked a bundle today

Tue. May 5: No rain last night. Clear until near daylight: the coldest night so far. Temperature at 6 AM 15°F. Intermittent mist & rain all day (some heavy showers) from 8-9 to 3-4 o'clock.

Too much rain & visibility too poor for satisfactory botanizing. Worked in new territory to ca. 1000' opened up by Lionel yesterday. Then under crest of mountain. Wide wooded shelf of several acres (as far as seen) covered with good tall mossy forest fairly open underneath & easy to get about in. Composition about as at camp level, but a beech is a canopy tree. Collected a Lycopodium with small leaves (25788) & white subacid fruit which is an important dominant all through these forests (fruits taken by Polaemus & Nyctimus at camp). Also gathered a tall palm, common in the taller mossy forest of this & neighboring peaks, which has the appearance of a slender coconut.

Overcast & a rain in hope. No shooting. Lionel & Tit-bit camped tonight to trap & shoot on the flat ground mentioned above. Found there today the spadix of a palm from which a great appeared to have been removed by a Dactylopsila

Tinker to WAIKAIUMA for mails & on to Tuna Bay to try to get a native to come up here with hunting dogs. One of the councillors was supposed to have brought his dogs before this.

Sunday May 6: Max. 27°, min. 13.5°C. The warmest clear night (allowed by clear until about 10:30 AM. Followed by heavy showers after that to near dark. Wettest day so far. Very now (7:30) warm.

Opened a new trail across the water place stream to a bit of swamp. Got int. stunted Dacrydium there, so cut up to "Lionel's Plateau". Poor morning before rain sent me back to camp.

Bert collected male flowers of the Nothofagus sp. first got in the Lycopodium forest at 900 m. & then a small canopy tree in tall mossy forest.

Nothing in traps. Nothing shot. Nothing from Tiomi's night camp.

Tinker returned from Wakaiuna with a big lot of mail, including a letter written by Geoff Tate. One from the Rev. Trathwell of MENAPI tells that "in 1934" he followed one trail up Mt. Mienaw, camped two nights at one #2 Camp, & from there went to the summit.

Good to have lamps in tent to dry moss collection & clothing.

Monday May 7: Clear night. Shot drizzling & sharp showers from about 9 to noon. Then & mostly thereafter clouds, see very hazy; wind from N & more boisterous than hitherto. Max. 61, min 15°C.

Belanigo up to the crest & there, with much trouble (mist & rain) made a few photos. The crest above us seems to be the 3400 ft summit of the range, although I have never in these visits had clear enough weather to see all around.

Two Nyctimenes shot from fruiting trees at camp during night by Rus. Eight Pogonomys out from hollow trees, five from a bit above camp trod by the mammal boys, three from about 500 ft below camp by Tiomi & his boy. Measurements indicate the species the same as on the lowlands of WAIKAIUWA.

Yesterday's mail brought word from Bentley, that they expect to send a boat to move us to Ferguson Rd. on the 19th & 20th. This a day or two earlier than I asked. Have therefore decided to move down to the coast on Saturday if carriers are available. Saturday is market day on the coast, when natives take their copra to the trade stores, etc.

3 End of very wind lifted page

Tuesday May 8: May. 26, min. 19 C. Boisterous north wind whistled the tents all night, accompanied by mist & some drizzle. Wind somewhat abated by the afternoon. No rain.

Went down the trail to about 700 m. (620 m. by my aneroid on April 30) & then collected the cook on the way up. Flowers only, & only a subsidiary one in rather shaded mixed rain forest. Nothing else of special botanical interest although the first Fragaria for the trip collected. Big specimen with soft, almost unarmed leaves & yellow fruit.

A good day for mammals. A Pyctinomus shot last night by Tiemel on his "platform". Two gray rats in traps set by Rees boys. Four Pogonomys cut from a tree by Tiemel & his boy, plus "Ifoma". The prize was a brown Phascogale trapped by the cook; heavy-set animal; a small pencil drawings by Rees.

Wed. May 9: May 27.5, min. 19 C. The northerly wind not so strong, but continued through last night. Weather still from N. today; mist much of time; light sprinkles from one o'clock through afternoon.

Went to the summit of PAIRUMBATA for the fourth time to make pictures. Eventually got around half misty circle of OBIA with East Tape under its south shoulder. Few plants collected. In afternoon went boys into the Lycopodium forest for an orchid with spotted leaves which grows here & there in the Sphagnum ground moss. It turns out to be Pafilliopedium (?), of which a specimen collected by me in the Baliem Valley in 1935 was sent a prize that it was named for Queen Wilhelmine. Like Cypripedium: dull purple-brown flowers much damaged by insects (?).

Another good day for mammals. The prize this time a black Hydromys from the small stream SSW of camp. A Rattus also in traps. Four Pogonomys cut from a tree.

Tiemel went down to Wakuimna to arrange for carriers for Saturday.

Thursday May 10: May. 27, min. 18.5 C. Cloud drift still from N. but wind down to a gentle breeze. No mist in camp. No rain. Pratamus returned coming in the

trees left last night; they were silent, & few bats came in feed during the windy night.

Botanizing in the direction of Mt. Obin about ½ mile & down the edge of a canyon-like ravine to about 750 m. altitude. Rain forest - many forest transition zone. Got three large Gyalta spp. from the ravine & a red-leaving Dicksonia from about 800 m. This makes 6 spp. of tree-ferns collected thus far.

Great bitter day for mammals. One in traps, Phalanger, a brown animal which I think is the second record of the genus for the D'Entrecasteaux. You got one on Goodenough in 1953. Four Pogonomys cut from a tree by mammal boys sent in search of carcass.

Friday May 11: Max. 27, min 18.5 C. Rather windy again last night & today. Intermittent small moist clouds. Wind from N to NE. Very happy today. Strange weather &, fortunately, rather dry in the mountains. The SE trades should be blowing steadily in May. No rain.

In camp, drying specimens & preparing for tomorrow. Lionel will not come up the mountain with the carriers.

One Rattus in traps & one Nyctimene shot in camp by Rex last night. Some special traps being left out tonight.#

The almost final count of plant collections for the camp gives 186 numbers (including 30 collections cryptogams) & 327 sheets of specimens. It could have been better. The flora is not rich. General collecting has been poor; very little any night from the light trap; hardly any butterflies; best results in damselflies; only one dragonfly caught. There is not enough open habitat for butterflies & Odonata. Frogs, with T-8 spp., have turned up fairly well. Few lizards (perhaps 2 skink & 1 gecko spp.), no snakes. 18 small eel from the little ~~stream~~ stream to the SSW.

EEL

Engraving of the Eclipsed Parrot

Sunday June 3: Overcast morning; heavy rain most of afternoon, ceasing towards dark.

An unpromising outlook for our planned transport move in the morning. This is the fourth day of bad weather in a row. Everything but our swags and the cook's box and pots and pans is packed tonight. Including 150 lbs of rice for the road there will be 47 carrier loads, 37 of which will be going on from Aganoia.

Lionel leaves early in the morning for Mapamoiwa and I will take over the transport man's duties. Today Rus finds himself practically out of flashlight batteries (only 10 new ones on hand for four weeks of field work remaining to be done on the island). Here at Iamelele we are in a radio reception blank spot for the Samarai transmitting station. We have no information on boats or planes. Therefore, if the mammal department is to function, Lionel must do the 6-hour walk to Mapamoiwa, get on the radiophone to Samarai, then walk down the south coast 6-7 hours to Ailuluai and from there climb the mountains to our proposed camp. If next week is fortnightly paine week for Esa'ala, the batteries can be flown there Tuesday and we can send a messenger (3-4 days and a ferry trip across Dawson Strait) for them. There might be a boat coming in this direction. Tomorrow will tell.

Mails will go out to Mapamoiwa in the morning, my corrected galley included.

Monday June 4: Rus & I left Iamelele at 9:15 AM with 36 carriers; arrived AGANOIA 1:10 PM. A very hard walk. Fortunately the weather held fine. Had to leave 11 loads at Iamelele. Shortage of carriers. Carriers were from SAIMETO (9) and IAMALELE #1 & #2. Had VC 1 from Taibula & Iamela #2, the Taibula councillor who went with Lionel up to MAIMELE track & also on his exploration of last week.

Reached FAGULULU 10:10; very hot over the thermal area. From followed alluvial flat through tall forest; were carried across 3-4 small streams still running strongly from yesterday's rain; track muddy, under water in places. In 20-30 minutes from Tagululu entered fine tall forest on rising ground; many great clean dipterocarps; ground stony as at WAIKALINA.

At 11:25 rested at the 4th stream soon after passing an area of Imperata & Miskanthus savanna. First hard going followed this. At 11:45 came to the crest of a narrow ridge at a place where old coconut palms marked the site of a former village, fine view of Lake LAVU & the Amphitheatre of the N coast (photos); boys climbed for drinking nuts — very welcome; altitude 200 m. The lake shown on the 1" mile map is actually an island in the lake. Small islands of grassy vegetation afloat in the lake; edges marshy.

Reached MIGBUKA 2:05, lunch stop ~~until 3:00~~ (many carriers did not arrive until ~~after~~ 3 o'clock); perhaps half dozen houses, good rest-house & barracks; 270 m. (nearly) & the high point on road

Left NICHOLA 3:05. Hamlet of LEGO AGAMA, 3-4 abandoned houses, 650m., 3:40. Most of the ~~[illegible]~~ distance through very steep narrow ridges; much oak & lot primary forest. much obsidian.

Dropped down through the primary forest to LILAI Creek, 160m. at 3:55. Tuligulu hamlet on low east bank. Growing here was a young Araucaria, ca. 30 ft. high, said to have been washed down as a seedling by a flood.

AGAMA, a village of about a dozen small houses & a dilapidated mission church (Methodist). Good rest house, but small for our needs as a collecting camp. Very friendly people. Headman & V.C. & several councillors, also 3-4 older men than one often sees. The women were busy cooking food when we arrived & towards evening brought 22 earthenware pots of tare & sweet potatoes; paid the government price asked, 1 stick per pot. Enough food for our 36 carriers, 8 "company" boys, & hangers on for supper & breakfast. Alt. 210 m. Went finally to shoot a wallaby for the carriers; saw three, got none.

Then AM at 6:45 Tiemel, with GALUWINA carrying a light swag, left for Vhafamowa

Tuesday June 5: Only 6 of our 37 carriers of yesterday were willing to go on to the mountain camp despite an arrangement with Tiemel that they would do the whole trip. I discovered this last night, fell in the carriers & talked through Kim. We agreed. Therefore asked & was promised 25 carriers by the Vhgamoia V.C. People want 1s 6d per day.

Good carriers late in turning up & it was 7:30 before I got away with 25 locals (6 of them women) & the 6 remaining Taibutu. Two local councillors carried full loads; Taibutu councillor with us.

Road followed the Vhgamoia spur ridge up a little way then dropped through primary rain forest to cross the LILAI at 7.20 m. (Vhgamoia 170 m. the AM). BUDAGHAFATUGONA hamlet on far bank. WA-IU hamlet of 3 houses 8:30. Mostly steep climbing from then on, with sharp. Upper OIBWAGA (fide Taibutu councillor) across the Tilai on left.

Alt 10:30 reached alt. of 700 m. where the track left the crest of the spur ~~on~~ had been following. Big Araucaria tree in oak forest here (oaks for ca. last 100 m.). Very steep steps descended on a very narrow ridling track to a rocky small stream at 650 m. Reached stream 11:00, ahead of carriers. Lunch stop for 2 hours. Fast water. Temp. supply. Slight showers as we rested.

Camp at 750 m. reached at 1:20 after a very steep ~~[illegible]~~ 25 minute climb from stream. Good ground. Oaks predominate

& conspicuous by brown under surface of their leaves, in wet looking forest 50-100 ft. high. Camp on a nice bench about 50 ft. below crest of the main Uganda-Mwanza divide.

Paid off the local carriers at their request - & saved thereby 50 lbs. rice. - & they left for their villages about mid-afternoon. (Besides the three councillors, the NIMBULA policeman carried loads). The two flys & my tent rigged before dusk, & the boys finished making their sleeping platforms well above the ground.

One drum of kerosene is somewhere between here & Samulele. Borrowed a very small hurricane lamp (German) from one of the Tabuka carriers & set by, & was in bed by 7 o'clock. The last two days have been strenuous.

Wed. June 6: Heavy rain, with thunder, through much of the night after 11 o'clock. Rain on & off, with rather strong wind, all day, hampering the work of rigging camp.

Paid the SAIBETO carriers & gave the councillor a present of £1 after breakfast; & they disappeared over the crest of the divide on a visit to the Mwanza coast.

Broke off supervision of camp construction to examine the divide above us. Camp altitude when I left was 775 m. by aneroid, Tionti's tight camp on the crest, a bit to the west, 800 m. A saddle in the divide to the south, under a peak much higher & bigger than ~~one~~ our slight eminence, 750 m. In this gap the natives have cut a fly-way which they net for pigeons. A rattan cane stretched across the fly-way has small bunches of dried grass attached to it. Walking natives shake the rattan, the attention of the pigeons is caught as they fly over, & they go into the net.

Final carriers arrived at 9:50 & at 11 o'clock Rus arrived from Uganda; had 16 carriers & three Sukuma councillors; journey of 4 hours. Carried by 13 Samulele men. The 11 loads I left at Samulele on Monday reached Uganda about 2 PM yesterday; 16 left for Rus to come on.

Walking in 30 knots just out 16 yesterday.

Hearing of many cicadas ("clock crickets"?) at 5 min. to 6 PM.

Thursday June 7: Rainy & squally much of last night. Keen wind from NE in forenoon; high overcast & little sun all day; some mist in trees 10 o'clock afternoon; no rain in night fall.

Lionel arrived from Mopanomono about 11 AM, having slept at UKEEKEE (UKAIORAIC of 1:mile map) on the Pioneer coast. Had the village constable & a councillor with him, also WAKIA, who was Mandi head boy on the Fly River in 1936-37. Magic hand I was here & came up to see me. Lionel walked up E in about 3 hours. Good track, he says, & moderate slopes.

The threatening weather on early morning kept me close to camp. Collected on the immediate crest over 36 numbers. Mostly common species, but a nice Tapeinia of the subtaps, a Tyrtea, & at least six orchids including a brilliant orange & yellow Geodorum of which I made close-up colour photos. Forest of crest, as of the upper slopes, dominated by one oak made conspicuous by brown under-leaf surfaces. Tall Araucarias prominent on crests of main ridges & lateral spurs.

Nothing in 125 traps set last night. Ate jerking.

All daylight this morning, & yesterday too, heard the beat of drums down the slopes to ca. north. The cicada sounds this AM.

Camp construction completed this afternoon but spare boys begin cutting forest to open up a view & let the afternoon sun into camp. Already we can see Tobe LAIRU & the coast of Hughes Bay.

Friday June 8: Fine day until 3 PM when mist rolled down at camp level & lasted until a little after dark. At first sprinkles with the mist; later the sky sometimes showed through it a little.

Cicadas began to sound at 5:55 PM; no sound from them this morning. They do not begin their evening chorus with an extra hand, should note, as on the mainland.

Lionel cut a direct track to the top of the first & second peaks to the east; he did not carry the axe. & followed an old, very bad native track which circles around the N side of the first peak. In rain forest; nothing of great interest. Track very narrow with steep fall, & made dangerous by slipping the roots. Had one fall.

One Young Grey rat (Rattus) in traps last night; four Dogonomys cut free a tree kangy. 175 traps out tonight, including a steel set with meat bait in camp, & two rat traps set on trees in camp.

Three women & 3-4 small boys & girls stepped in from a hut in camp on route FAIYAMA on the MORIMA Coast to AGAMOA. Unusual to see women travelling without escort. Old man & his son & a dog, same species, came up from the Morima coast then AM to satisfy his curiosity about us, & went back after a meal of rice.

Tel. June 5: In mist cloud almost continuously from c. 8-4 o'clock. Heavy rain 1-1.30 PM. Thunder this morning (thunder every night since we have been here). Wind c. SE.

Photographed westwards along the crest line ca. 1¼-1½ miles by a new track cut by Fiaui yesterday. Highest elevation 950 m. by aneroid, which must be wrong. We will have to see the marine charts for altitudes hereabouts. The 1-mile map is quite unreliable for anything. Old Dicksonia probably the most important plant collected. Found more orchids. Two Hf. Nepenthes.

Fiaui cut further along the ridge crest in the clouds, reaching 900 m. by aneroid.

Another young gray rat in ca. 175 traps out. Four Pogonomys cut from one tree by the boys. Three boys lacked for nothing last night; Rex, for a while before dawn, shot at two bats. Old comparison of Pogonomys total-length measurements by Rex shows the Normanby animals to be much bigger than those of this island; the mountain forms bigger than the lowland on both islands.

Photographed soon after sunrise the newly opened view to the N; Moresbies against the morning light. Clearing finished this afternoon; a grand view of the island from Mt. Maybole to the NW to Mt. Kilkivan (15 M slope) to the NE.

Some Morima people brought coconuts, limes, & a few taro, taki, & sweet potatoes to sell for tobacco. Three men with dogs came to inquire into the matter of hunting for us. Not expected to start on Sunday. The

offer 10/- for the black forest wallaby (Dendrolagus), which is said to be found sometimes on small streams in the mountains, 5/- for cuscus & bandicoots, 10/- for the first Dactylopsila.

A fresh supply of batteries from Jamaica, expected today, did not arrive. By arrangement by Lionel over the radiophone from Mapamoiwa, the "~~Kadelia~~ Kedelumu" was supposed to have dropped them at HIKLUAI yesterday. The Mountain people today said the boat had not arrived. Jacking now being done on HING NAH "Fire Ram" batteries made in Hongkong, bought at 1/- each by Lionel from Tribbens' back store at Mapamoiwa. This will be about their last effective night.

Among today's plants was a fruiting specimen of an epiphytic small-tree Rhododendron, past flowering, but with great fruits 17.5 to 19 cm. in length. Will save seeds if they seem mature enough. Another epiphytic small-tree Rhododendron grew beside the first, past flowering. On the highest spur crest grew a Xanthoxylum or Decaspermum with small, pointed leaves — a "mossy forest" element, but I would apply this designation to the forest as a whole (perhaps a stunted rain forest).

Sunday June 10: Clear, hazy dawn. Showers, some heavy, from 10 AM through rest of day. Last night was clear & starry.

Returned perhaps 1000 feet down the HIKLUAI-UKECKEO track. Nearly good travel on the crest of a spur on which some fine Araucarias grew in oak forest. Then as far as a fernery (Gleichenia) rest clearing, where rain & thick mist drove me back. Half-hours walk back to camp. Two spp. of Begonia (one of which was at 1300 m. on Goodenough) the most interesting of ca. 20 plants collected.

Weather prevented continuation of track cutting on the high crest by Lionel, who sent word to HGAMOIIN for carriers to meet us down on Monday week.

Nothing in traps; no results from jacking last night. The day for mammals saved by the arrival, about

1 o'clock, of a cheerful Moriori man with 3 Pigeonwings cut from a tree & a young bandicoot caught by dogs. Had a young son & two dogs with him. Came & went in rain. Will sleep in his village & come up to us when he has specimens.

Tent has a bit out on edge of camp tonight.

Wend. June 11: Max. 73, min. 15°C. SE weather of yesterday continues. Mist in the treetops by 9 AM. Rain below noon & most of afternoon – on & off. Weather is hampering botanical field work. It brings hazy conditions which are against photos of the fine view from camp.

Collected this morning the fine Araucaria of this island. It looks like A. cunninghamii but could be another species. Picked a small but old tree 30 m. tall x 72 cm. trunk diameter; cones well, about half grown; photos closeup in color. Was disappointed with the meagre variety of epiphytes on the ~~tree~~ old Araucaria: a Hymenophyllum, a Hymenocodia, Astelignea & one or two other ferns, one small white orchid & a little reddish Dendrobium in flower, & very few bryophytes. Of grey usnea conspicuous on other old araucarias.

No mammals got in any way last night. A native hunter brought from somewhere down the Moriori slopes (by way?) & brown cuscus & two small bandicoots. He & his son & two dogs are camped in a bush shelter on the ridge crest nearby. About a dozen small boys & girls, & a couple of young women from the Moriori slopes in camp this morning. The bandicoot being got here is much smaller than the 2 specimens from Tamboli.

Tent cut further along the crest & reached top of a small sharp peak 1010 m. by the family amoeid. Clouds prevented his seeing out. Distance from camp estimated as 2½ miles or more.

Tuesday June 12: Max 73°, min 15°C. Mist on & off 9:30 to dusk. Only slight showers, but heavy rain 6 PM – 6½. SE continues.

Next day in camp after collecting a palm fairly common on the ridge crest. Resembles the coconut-like sp. of prit. Polynesia, but not so tall; may be another species. Sent boys to collect down to water on the Morinda slopes: ca. 8-10 plants new to the collection.

Photographed a bat (Macroglossus), & two orchids (a white terrestrial & a small, dainty Flemingia), with close-up equipment.

A big brown Pteropus (2nd spp.) in traps; 2 Macroglossus in the net at dawn (Rex happened to be standing there after being out with his jacklight), & cuscus, a bandicoot, & 3 Petaurus brought in by natives. An excellent day. Have put a limit on cuscus, which evidently are easy for a native to find with dogs. Thursday, one interest is Dasyprocta & Dactylopsila. I found today a bamboo from which most likely a Dactylopsila had extracted a grub from holes gnawed in the wall of the internode.

Mammal boy ISUKELE on his third consecutive day off duty with fever & a sore throat. Gave him 2 sleeping pills at 1 AM to quiet his groaning; put him on a camoquin routine beginning today (3 pills per week).

Wed. June 13: Max. 26.5°, min. 18°C. Much rain through last night. Cloud & mist to mid-morning. Sunny after that, 5/8 cloud drift.

Weather kept me in camp preparing plants, to 10 o'clock, then went down water-place ravine (± half-way). Collected some good things including 2 Hymenophyllacea, a common Asteridium, small Amaracarpus of the undergrowth, Bonnecarpus, etc. I have far more plants on hand than I can dry out, am more than a day behind in getting specimens into the dryer.

No mammals got last night. The native hunters camped nearby brought in this afternoon a fine bandicoot, blackish on head, neck & shoulders, & 5 cus-cus of various sizes. Have stopped buying cus-cus.

Motion taken to see what has become of the "Kidelumä"

& the Catalina she was supposed to have dropped at Hikueru for us during the weekend. Tinker departed 5 AM for Makemo with a request for Crosby to get in touch with Downings by radiophone. Tiaré went down to the coast at OKEOKEO & found that no boat had called in there or at nearby Hikueru. About 16 small boys & several young girls, plus a committee from OKEOKEO, bringing a few bananas for sale but chiefly to have a look at us.

Thursday June 14 Max. 22°, min. 16° C. Trade, SE wind most of last night; air quite chilly. Sky clouded & no mist today; no rain; SE continues.

Worked down to the water-place gully & for a little way along the side of the mountain on the Hyamovie trail. Found bag, mostly of ferns of the ravine, also an interesting Rubiaceous small tree with small white flowers.

No mammals added to collection except a sika-sika (Pteropus) shot last night in camp by Ives. The hunters went down the Phonma steps for bats & did not return. Tonight the water-place stream is being trapped for the first time. Traps were supposed to have been there from the beginning. Boys need more supervision than they are getting.

Working a double shift on the dryer in an effort to clean up accumulated plant collections.

Friday June 15 Max. 23.5°, min. 16° C. Trade, still night; no mist or rain in the 24 hours; weather SE & hazy.

Worked on specimens & sent boys down Phonma steps. They brought back only seven additions to the collection. The locality is about worked out.

M. brought Melanys in the new trap set on the stream & Hydrelimnas gramineus in one of the two bat nets set in camp. Melanys is a genus new for the island. No insectivorous bats caught so far in the few nights nets have been set on the trip. Also they alone furnished with

"radar", i.e. fruit- & nectar-eating species not so equipped.

One of the Moanima hunters who have been camped nearby returned this afternoon from a visit to the coast. Brought 3 small Lobanicus from a cave on a creek near UKEOKEO, a Wycliffe i.e. bandicoot. We saw in the bat shelter when I passed it by this morning; hunter has perhaps gone home for good. He has brought a nice lot of mammals for the collection & on local values, has earned a considerable amount of money for himself (he has had a companion most of the time). This man has earned $41 so far.

Watched in amazement this morning, Tinker eating a great plate of boiled rice after two days of illness & much groaning during two nights. It brought the remark from Lionel: "When them bastards stop eating, they're crock."

Tinker walked into camp at 6.45 PM, having left Mopamoiwa at 10 AM, he says, & walked the best part of an hour in a mountain trail by flashlight. He brought mails. But instead of the flashlight batteries we need so badly, a carton containing four bottles of rum. Of general mix-up. We note from Crosby, who is being relieved by another EMH., with whom, apparently, he was having a party. The new EMH was brought from Jamaica by the medical vessel HEKAHA, according to Tinker. This vessel brought our cargo, the KEDELUMA having broken down. Only the batteries were supposed to come on the Kedeluma (to AIKUKUI, on the Moanima coast); the 4 dozen enamel plates (to replace plastic rubbish I bought in New York) & 4 bottles of rum were to be sent by the vessel due to pick us up at IAMELELE on June 27. Last on the Hekaha were a case containing 6 dozen plates & the batteries, & a carton holding the rum. Crosby gave Tinker the rum; the batteries are still at Mopamoiwa.

Sat. June 16: Max. 23°, min. 18° C. Light rain with heavy mist from dawn to about seven; misty to mid-morning. No further rain. SE weather.

Tinker, having volunteered to go back to Mopamoiwa, departed about 8 AM with a letter from Lionel asking

that the collection & ½ dog. plants be extracted from the packing case & sent back to camp with him. The HEKAHA is supposed to return to Tamarai tomorrow, & could drop Tinker at Hilutwai en route.

Botanized down the crest of a spur by which an old path descends in the direction of MOBUHA. Some additions from this last excursion for this mountain camp, mostly ferns, including the first fertile Elaphoglossum for the trip, also a small tree of the Myrsinaceae.

One small gray Rat in traps. Nothing jacked, although Russ fired two shots before daylight. Kem, also out before dawn, came across something in the forest which must have been either a dog or Sarcophilus, but being a cook rather than an accomplished hunter, he had no shell ready in his gun & the beast got away.

Our 1953 employee, MIKO, & several children up this afternoon from the Moresina side to relieve our 3 Moresina boys of their Saturday tobacco issue. But we are running short of tobacco & the boys were issued only one stick apiece to give away, or with which to buy betel-nut. Ryan boy CALUWIMA sent to Samabe this AM to get a fresh supply of tobacco from one of our locked boxes.

Sunday June 17: Max. 23, min. 18 C. Frequent strong gusts of SE wind last night, recalling Pet. Camp on Goodenough Pt. in 1953. Light rain with mist 5:40 to ca. 7 AM. Fair & cloud ca. 5:45 after that.

Day devoted to drying collection & packing for transport to Myamia tomorrow. Some letters written.

One small gray Rat in traps. Tiomi & Kem jacked last night for no results.

The strong southeasters will make landing difficult on the exposed Moresina coast. Another complication in the battery situation.

Have 229 plant numbers (including 48 bryophytes) for this camp. Did nice lot of orchids & ferns. Few trees in flower or fruit. The only well defined major communities are the oak forest in which we are camped

& which covers the crest of the backbone ridge just above camp. On the ridge top there the trees are only 30-40 ft. high & there is much moss on the trees & ground, especially in tufted mounds about the bases of the bigger trees, which dwarf short stiff roots. The rain forest occupies the water-place ravine, where an abundant tuliaceous undergrowth (tuliaceous) is present. On the rain-lack crest of the higher parts of the backbone, to the west, the very mossy, shrubby forest carries much small-leaved Xanthoxylum (or Decasperma) sp. as a subsidiary tree, but there are no oaks or beeches & the forest is perhaps a mixed rain forest of roots. Two Rhododendron sp. (in fruit only) found in the very shrubby forest. Apparently the terrain above the oak forest is too precipitous & the ridge too narrow for occupation by either oaks or Nothofagus. I found Nothofagus on Goodenough & Duke of York Islands & I hoped to find it here. One of the best things botanically is the fine Araucaria associated with the oaks on the crests of spur ridges (mostly lateral spurs) & which go down the slopes to probably 2000 feet.

Including Dobsonia from the Morima coast, & other things brought in by native hunters, there are 42 specimens of species for the camp (Rattus 17), Pteropus, Melomys, Dobsonia, Macroglossus, bandicoot, Phalanger, Petaurus).

The locality has been poor in insects. There was one rather good swarm night for moths. Very few butterflies were taken; only one big Papilio, a good lot of damselflies, mostly found in the forest far from water.

Frogs have turned up well. Only one skink (like a sp. in the Normanby mountains) specimen found. No other lizards apart from a gecko jacked at night. No snakes.

Monday June 15: Heavy rain 4 AM to around seven; rain was still falling when I left camp with my two boys to collect on the way down to AGAMOIA. Left the mountain camp 7.50, arrived Agamoia 12.10; several small showers on the way. Heavy rain after all carriers had arrived (c. 2 PM – 3). Rain from SE.

Good fortune was with us today. At 6.45 AM Tinker turned up with the 12 dozen bottles that have given so much trouble & entailed about 100 miles of travel; he had slept at UKECKEO & a young Moriori man was with him. Eight Moriori men & several small boys turned up a little later to assist in the carry. With these, & our 20 from the HOAMOAH villages, we had more than enough (had 30 loads, but somehow they were carried by 33 people). The carriers were still arriving at Organos when CHUWINA walked in with an 8-pound package of tobacco from HAMELEHE.

Among the Moriori men was INOHOBI, our cook on the Fly River Expedition, wasting all over, but much emaciated as if through a wasting illness. It is good to have these old boys of ours turn up to say hello, & romance with our present staff about old times.

The journey down was only about 3 hours for carriers. Footing was bad on the steepest slopes & hard work than on the way up. Had a lot of slips out in the pole grass & soil of the main cap forest ridge. Much of the travel through second growth rain forest on steep old garden land up to ca. 1500 ft. Collected 18 plant numbers on way down, bringing the total for the mountain trip to 247, not 283.

One of the Moriori brought a few Uromys, bought for 5/-, the first we have for the island.

Tuesday June 19: Cloudy day, heavy rain between 2 & 4 PM.

Collected on a grassland patch of up to 100 acres a short ½ hour walk ca. N of camp & at perhaps 600 ft altitude. Trees ridge except for a few widely scattered Deplanchea trees (stems). Grass burnt in patches; mostly Remedia, with a sparse sprinkling of Tetralea, Sorghum, Alinema, etc. A little Imperata in places. Herbs: Pimelea, Hackhousia, Glycosmis, Buchnera, Nitrosacme, Cassia nummifolia, Crotolaria linifolia, etc. Doubtless man-induced. As seen from our mountain camp, there are several similar patches in the neighborhood. They lie on the open ground after two weeks in the mountains.

Tiami, jacking last night, shot a Cuscus, a rite rite, & a Nyctimene. Kim & Cuscus, Rus saw nothing. Tiami, getting up at 4 AM, bagged a wallaby on the grassland patch. 8 holes visible. Three Pogonomys bought from a native this afternoon for a stick of tobacco apiece. Tom Pipistrelles shot this evening by Tiami & Rus.

Wed. June 28 Cloudy on & off but only very slight, very showers. SE wind. Clear last night.

Tramped down the government trail to LAAI Creek then down the bank of the creek perhaps 1/3 mile. Most interesting plant was an Calamyrtus, a genus I have only seen on the mainland before. Still collecting done in rain forest second growth of the usual Macaranga other species type. A big Ficus was collected, conspicuous by its umbrella crown of dense branches.

Lionel, taking Tinker, left for KEDIDIA (GOMUA Bay, where Lionel Fournell has a 100-acre coconut plantation) at 7:30 AM. Purpose of the long walk, partly to examine our proposed camp locality at DEIDEI, partly for a change of scene. Lionel has not had much physical exertion during the past two weeks, & he likes movement.

~~Four~~ Lionel jacking results last night were one Pogonomys, 3 Phalangers, 1 Potamus, 2 Zelosmus, 1 ~~[illegible]~~ Pteropus. Tinker got 2 Intermedius, 2 Pteropus. Rus shot & lost a couple of things. One big brown Rattus in traps. The skinning food was somewhat lessened, however, by the loss of the 3 Pogonomys purchased yesterday. Rus left them on his skinning table last night, & no doubt they were eaten by some prowling village dog.

The day has been eventful in another way for the mammal department. Rus finds himself out of arsenic & alum. Not a stick left. As he is not sure where his supply is packed at Jamelle, he will have to go down there himself tomorrow. The journey there & back will be at least 10 hours of walking.

Rus has buried the Tinker carcass. Had received bowels & ended up with the shelter out of action.

Thursday June 29 Heavy rain from a thunderstorm between 1 & 2 o'clock last night. Rain for about an hour in mid morning. Thunder mostly overcast. SE wind tonight.

Rus, with COLUMBA carrying a blanket & some sandwiches for him, left for Jamelle as day was lightening at 5:45. Returned at 6:15. Took 5 hours for the down journey, 1½ for the up. Is in fairly good condition though tired tonight.

Met small boy IDAWAWAVETA, son of the local mission teacher, as guide, & went to Lake LAVU in the center valley of the island. Hampered by rain, the down journey took 1¾

hours. Returning on the return journey took us 2½ hours. Followed from the TOTOREA track at the foot of the grassland patch a bush track with many branches & an approach to the lake climbed over a low range of hills. Reached shore on ± SW side of lake, where people from the part of the country have a fishing camp. Then steep-to. On a point of land ca. ⅓ mile to W. was a native hamlet & in front of it a small outrigger canoe on the bank. Thronging of women there. Men apparently away at the gardens (a lot of activity here now in clearing new ground).

Was impressed with the efficiency & complete harmony with the movement of my small guide. Half hour or so from the lake we passed a new garden house occupied by a woman & two children (one of whom went back when he saw us). Then the small boy procured a firestick. At the lake he started a smouldering fire under the shelter, found somewhere a piece of line & a hook, picked up a pole on the bank, & in no time had ~~caught~~ caught a fish. By 11 o'clock, when I called for rice to be cooked for the boy's lunch, & my billy boiled, the youngster had the fishes of small edible size. He offered me my choice. I took three of two apparent species as specimens. The rest he killed by beating with a stick, then dumped the string on the fire. The bait was a small, pale shrimp caught in the roots of the "water lettuce" (Pistia stratiotes); I have 13 as specimens, plus 15 small damselflies from the grassy shore.

A disappointing day botanically. I expected a bog of waterplants. Yet only four (Pistia, a white Nymphaea, an amphibious Cyperus & a remarkable amphibious Typha, 7 m. tall with very thick 3-angled stem.) Then too steep & water too deep where I was. All second growth scrub found from the grass patch to the lake. Some big ILIMO trees on the flat lands of LILAI Track. Soil sandy loam.

In water birds I saw only a medium-sized grey heron & a pair of jacanas. No sight of a crocodile, which are said to be very plentiful. Lake appears well stocked with fish. Water sweet. Rock of the steep shore looked like a schist.

Lit the two mist nets beside flowering Rapoki trees in the village, hoping for small flower-feeding bats. One set for several nights when Pteropus flying near the rest house has yielded nothing. The pups fly around it as they would a bag stick. Rapoki is a nectarivorous blossom.

Friday June 12: SE weather continues, more or less windy. Rain enough last night to stop jacklight hunting. Rain shower between 1 & 2 PM.

Collected in primary rain forest (the only area I have seen in the neighborhood) down the track towards the grass patch for nine species including a cylindrical-faced Sandfomer which looks like one I collected at WAMBIWIT & one at JAMELELE. A splendid red-backed Wormia is plentiful & very conspicuous, but shrieks. Some few other trees of first magnitude are present.

At Wharangomes is a Cebocaius, plus a sunbird & another small bird in the bushes early the morning. Nothing in traps last night. Jacking by Kim & Tiklik shifted by rain.

Tionel returned about 4 PM from KEDIOIM, a ten-hour walk. Reports good travel & gradual ascent through the SAKAKADI country to the Tatamo River divide. Tatakadi population extends about 1 hour past the divide, then 2 hours travel through uninhabited primary forest. Over 40 stream crossings. 16 villages en route.

Tionel reports an outbreak of something which is killing the fish in the seas off eastern Papua & from Goodenough Island east & south through the D'Entrecasteaux. All residents on the radio circuit have had official notices about it. Official opinion is that the cause might be seismic, or biological (i.e. "red tide" of Florida). Govt. Vulcanologist Taylor reported on his way to investigate.

Most of our boys spent last night at a big feast & dance at one of the TUTUBEIA villages, 1½ hours walk from here. Tionel, who passed through the village the PM, reports a big affair with hundreds present, & great show of pigs, root foods, & betel nut. The climax comes tonight. Tutubeia appears to be the beginning of the Tatakadi country. Here at Ogamoia the affinities are with Tagululu.

Tot. June 23: No rain last night or today. Some thunder & dark clouds up valley in afternoon.

My last day in the field here. Went up the mountain back to where it branches left to villages, then split again. All second growth forest beyond the road fork. Bit of primary forest in a gully yielded a few interesting buds including two of Ficus — one with shining Tuncina-like receptacles.

Despite press collecting, I have more material than I can dry with the one vasc I have with me. Am continuing to collect in terms of sight when the material is available.

Run shot last night a Polamus & a Gobsonia. This afternoon he & Lionel visited a cave about a mile & down 12 steps from camp & collected two Gobsonia & 8 Hipposideros cervinus. Cave is under a horseshoe-shaped waterfall, about 100 ft high, to the E of the grass patch. Said to go in ca. 60 ft & have three short branches. Entrance in water waist deep. Rock said to be a sort of conglomerate. Name of cave ~~NIB~~ NIBOTHIH.

Tuesday June 24: Again no rain

Drying plant collections & pickling one bundle for transport to the coast tomorrow. Have 52 numbers, 200 sheets of specimens for the camp. Poor visibility for me. Most of the forest is second growth.

A Wallaby & a white-tailed Pteropus shot last night by Lionel, out jacking, confined his attention to bats, got nothing. Boys, sent to the bat cave this afternoon, returned with 10 more Hipposideros.

Gave boys time off this afternoon to attend church. Service held at the regular time, but when the congregation assembles from outlying villages some metal object is banged as a signal. Other missions I have seen, at Samoala & Tubetube, have log drums.

Monday June 25: Back at Ianelele I. Had a good fine day for the transport. I left Agamoia at 7:20 with the intention of botanizing on the road and, lunching on a small stream about an hour the other side of Pagululu, arrived at Ianelele at 3:15. Rus passed me on the road and arrived about an hour earlier. When I arrived the carriers were just beginning to come in and drop their loads - 32 of them. I traveled by the Pagululu-Niubuwo road; the carriers and Lionel by another road which went first to Lake Lavu then down the flat lands of the valley via Ianelele #2. This road muddy in places and the distance much greater than by the hilly Niubuwo route. Lionel had more people (Agamoia area) offering to carry than he had loads. He left Agamoia at 8:20.

Everything left at the Ianelele rethouse (in charge of the VO) appears to be in good condition, and intact. The VO is not a person who has inspired confidence, but he was the only man to leave in charge of our cargo.

Tuesday August 14: A heavy rain squall from the SE delayed our departure from Bwagaoia until 8:40 am. Eric Ryan is not a seaman and is rather timid about his boat. The "Titan" is a 40-footer, sloop rigged (she at lease carries a jib), and has a new 40 hp Ailsa Craig engine. One bunk in the wheelhouse aft; no accomodtion for passengers. Ryan uses her as a trading boat, picking up copra and shell, and selling manufactured goods. Has a big stock of trade on board this trip.

Had a rather rough passage on the open water past the Renard Islands and until we passed through the barrier reef of the Calvados Chain. This was at 1:30. At 2:25 stopped at the big island of Pana-wina to set down a native passenger at Bunting's coconut plantation. At 4:05 anchored at small Nigahau Island to trade. I went ashore. Some goods sold for cash and bags left to be filled with copra which Eric will pick up on his return journey. Very clean village with about 20 houses. Houses quite big as a rule. A government resthouse and a new RC church, the latter still unfirished. The mission has a native women teacher here. The resthouse used as school. Several big built-up canoes on the beach; painted white. A number of Japanese green glass fishing floats in the village. Left Nigahau at 4:45 and anchored for the night at Grassy (or Wanim) island. Slept in the government resthouse on NW end of the island. Sandflies bad; big old megapode mound at resthouse; megapode calling at night.

Wednesday August 15: Left Grassy Island 7:15 am. Village on north end of island, close to resthouse, has several old-style hog-backed houses. Gardens being cleared and burned in relic bit of rain forest in gullies on the slopes. Passed along the south coast of big Pana-tinana or Joannet Island. Good forest cover on the west end of this island. All the islands of the Calvados Chain are hilly. Much grass on some of them; secondary condition following deforestation for cultivation. Looks like the dry season for these islandsl numerous smokes from grass fires; many patches of newly burned grass. Reason for burning the grass not plain; there are no wallabies on the islands. Anchored to look for trade off a small village near Son-of-a-Bitch Point on Pana-tinana. A good bed of gold-lip pearl shell here, in 18 fathoms, and a number of lives have been lost in diving for it. Hence the name of the point, which seems to be Utana Point of the chart.

Anchored at Nimoa at 9:;5; headquarters of the Catholic Mission in the Louisiades. Good buildings; very well kept. Father Twomey, the one priest stationed here, was away in Samarai. Brother King, very young, clean looking Australian from Laverton, Victoria, temorarily in charge. A convent with three European sisters, whom we did not see. Big white statue of Christ on the cross, and a flower-bedecked grotto of the Virgin. Brother King offered us rum and water. We had morning tea with him- nut bread and pretty little cakes and iced cookies. Mission has electric light and a boat. About 170 boys and girls in the school, which is now out on holidays. Mission has big food gardens on Sudest, across a couple of miles of water to the south. Our call at the mission was largely to arrange for cargo from Samarai to be dropped there for us, and for making an arrangement with the mission to forward the cargo to us in their boat.

Left Nimoa 10:45, passed Griffin Point at 12:~~45~~ 2, anchored at Joe Landing at approximately 1:30. A good resthouse at Joe landing (proper name, Inagailaui), and from it a track crosses the island, close to Mt. Riu or Rattlesnake, the highest peak (2645 ft.) on the island. A village policeman, one Bom, here. Genial man of middle age and small stature, well covered with sipoma. Remembers the time when (about 1914-15) one of the Eichhorns went in from Bowla village and spent a week on the mountain. According to Bom, Tommy Craig was with Eichhorn. Bowla village, perhaps 2-3 miles east along the coast, is no longer in existence;

according to information received at the mission; a new village, Areda, has been built, about half-way between old Bowla and Joe Landing. Room enough in the resthouse for the three of us to live, for storage of all our gear and supplies, and for Bus and I to work.

Had news on the radio that the scow "Kari", on which we traveled from Samarai to Bwagaoia, was wrecked about ten days ago on a reef in the Egum Group and is a total loss. Crew and passengers (2 Europeans included) were all picked up by the "Kuniara" on the 13th. The Kari was bound from Woodlark Id. to Samarai. Ours was probably the last trip she completed. A vessel inadequate for the job she was doing; her native skipper seemed competent enough but seemed to allow his crew to make decisions for him.

Thursday August 16: SE wind still blowing, but here on the lee shore of the island we are sheltered and get only a cooling breeze in the rest house. Some cloud but no rain.

Boys rigged the drying units and made a work table of sago midribs and later joined me in some botanizing west about ½ mile or so to the mouth of a small creek. Shore fringed with mangroves 20-60 ft. high: Rhizophora, Bruguiera, Avicennia, Carapa, Heritiera, etc. but not a mangrove seen fertile. The crab-holed mud grey and clayey and containing much broken white quartz. Shingly gravel in creek apparently mainly shale. Entire-leaved, white-flowered Acanthus forms thickets up to 2 m high where rain forest joins the mangroves; Asplenium aff. nidus also growing there in large pale clumps on the muddy ground, where there was also a common tree-fern (Cyathea), and a hepatic on the ground. Some unusual occurrences for a subsaline habitat. A big Entada climbs to the tops of the trees in the ecotone.

The gray soil along the coast is dry and hard. Evidence of this being the dry season. Village rich in - or infested by - pigs (mostly spotted and of fair quality) which must foul the place badly in wet weather. Only a small village of eight houses including the rest house. Our boys sleep on the ample porch of the house of the VC's younger brother. Front row of houses built right on the water's edge among tall coconut palms. Most of the villages seen on this coast are back from the mangrove coast and 100ft bottom more above the sea on the frontal line of ridges. . There is a gap in the mangrove frings, a couple of hundred yards long, at Joe Landing. No sandflies or mosquitoes have attacked us so far.

No traps set last night. No shooting; this to give a chance of a shot at a big crocodile said to be in the habit lately of crawling up under the houses during the night. This croc not afraid of the natives, and will not be hunted away by them. For several hours Eric (who decided to stay at anchor here to trade) and Lionel crocodile-hunted with dinghy and headlamp along the coast to a big creek about a mile to the east. They saw nothing. Tide perhaps too high, they thought. Alec shoots for their skins any crocodiles he comes across. An average skin worth about five pounds.

A little black-lip shell dived for on the reefs here. Eric pays sixpence a pound for it if of good quality. He also buys small quantities of the Sudest gum. This, said to be gathered mostly by the women, who pick it from the bases of the trees or the ground below the trees.

There is on the gravelly beach a big new white-painted built-up canoewhich I asked Bom about this evening. It was bought from Bocker Island by a rich native who lives in the hills above us. (Like dim-dims, says Bom, some natives are rich and some poor). The price paid for this canoe was five pigs, 200 lbs. of sago,

20 baskets of native food, and 40 pounds in money. These people have trade with Booker Island From the Bookers they buy or exchange cooking pots for sago and baskets which the women make. There is also trade with Rossel, the red coconut parrot (and perhaps other species) being traded for bagi (shell money). For a parrot the Sudest people can get a string of bagi worth up to about six pounds. Pigs also traded to Booker Id.

Lionel shot this afternoon four blue pigons which provided us a really excellent meal of soup, breast steaks and wings and legs. Mostly the cook overdoes fresh meat. This evening I gave him the ample leftovers to eat and savour, so that we may hope for a repetition of this evening's success.

For some reason which I donot know and have not inquired into, the white traders, I am informed by Bom, are not interested in buying gold from the natives of the island. Gold is to be had in "plenty," says Bom. They can't sell it, so don't work the streams for it. All the traders ask for is copra, shell, and gum. In Samarai I saw recently in the illicit possession of Fred Riley an estimated ½-1 oz of good coarse gold which had been bought on Sudest at 6 shillings a pennyweight the regular price according to Fred. Gold buyers have to be licensed and declare all their traffic in the metal. Riley was drunk and spilled about half of his gold through Buntings back steps.

Friday August 17: Heavy rain from 4:30 am to about six; drizzle until about eight; sharp shower about 11 followed by drizzle. No rain afternoon or early evening. SE weather.

Lionel was to have started this morning on a reconnaissance of Mt. Rattlesnake (or Riu) but the councillor who was to be guide, and the carriers, did not turn up. He is ready for an early start in the morning.

Botanized inland to a distance of a mile or better by a good track which climbs quickly up a kangaroo-grass spur from camp. Reached an elevation of perhaps 400-500 ft., which I have called 100 m. on the plant lables. Forest in the gullies on both sides of the spur. Secondary at first. Later primary forest relics from which I collected some good trees (Syzygium, Parinarium aff. nonda, Fagraea, Weinmannia, Buchanania. A good soft cover of Themeda, about knee high or less on the open ridges. Collected an Ophiusus? and saw Sorghastrum and Eriachne? in grasses. Accompanying herbs practically identical with those of Fergusson and Misima. Pimelea, Euphorbia (Chamaesyce), Phyllanthus, Borreria (not previously collected), Osbornia, Hypoxis, etc. A small shrubby snadpaper fig scattered on the grassland ridges as a shrub.

Shot last night were 10 specimens of mammals (Pteropus hypomelanus, P. conspicillatus, Phalanger orientalis (very dark), Nyctimene geminus, Dobsonia), and taken from about 130 traps out were two rats which except for their white bellies looked like Rattus ruber. Only three mammals previously recorded from the island: Phalanger orientalis, Pteropus hypomelanus, and Petaurus breviceps. We heard the Petaurus last night.

Work on camp rigging and conveniences finished this am. Some insects and frogs collected. A spell of poor weather for field work.

Saturday August 18: Heavy intermittent showers most of day from 6:15 am. Some sun in mid-afternoon. Still more or less rainy tonight. SE weather.

Started late into the field, to east of camp along coast, and gathered in all 15 numbers. Nothing of special interest, perhaps. A common Pandanus of open places, A green-flowered behind mangroves, with syncarpous drupes. A small Gnetum.

Pandanus of open places
A green flowered

A rubiaceous small tree which comes close to Psychotria, but is strange to me.

Nothing in traps last night. Two Bobsonia and a Nyctimene shot by the cooks. Rus, complaining of being tired after a day at the preparations table, went to bed. Lionel has a poisoned foot. ~~Tonight, Lionel is out in the drizzle, shooting. Rus is making a book.~~

Two natives went fishing this afternoon and from them we bought, for two sticks of tobacco each, two fine big green-mottled crayfish which seem to be have the local name BAGIA, and two somewhat reddish fish, bought for one stick the pair. Ate as much as we could of the crays this evening. Kim, as he is apt to do with anything not handled every day, made a mess of the meal, cooking it too early and serving it cold. Four blue pigeons shot yesterday. What with excellent pigeon soup, and quite good tenderized pigeon meat, and today's seafood, we are doing well off the country. We are getting only a few sweet potatoes from the native gardens. This seems to be a time of shortage. The ground was dry when we arrived here. Bom says the crops were suffering, and that the present rain was achieved by sorcery.

As was anticipated, no carriers for the mountains turned up today. A start by Lionel tomorrow is possible. The people in the inland village, where the councillor lives, are Methodists and will not stir on Sunday. The Joe Landing folk are Catholic, however, and Bom says the young men will carry if the weather is fine. The guide will have to be the councillor from the inland village, who alone seems to know the way to the top of Riu.

Sunday August 19: A lot of strong SE wind during last night. Fine this AM until about 10 Oc'clock, when drizzles began, clearing late in the afternoon.

Lionel unable to get away again today. This is contributions Sunday for the Methodist Mission. Native adherents alive gone to give money and garden truck to the Tongan head teacher, or whatever he is called, who lives at Rambuso and yesterday went to a village west a few miles along the coast to do the collection.

Worked inland up the track to a distance approaching two miles from the sea and altitude estimated at 150 meters. I omitted to record that a week ago today, "Drunken Sunday" in Bwagacia, when the young government offiers left for Samarai with 2 dozen beer and 11 bottles of rum for the two day voyage, Fitzer threw our aneroid into the salt water at the wharf. I still don't know how Fitzer came to have the instrument. No native would dive for it. So Lionel went down in 5-6 fathoms and brought it up. The aneroid is now on the way to Australia for reconditioning.

A good day for mammals. Nothing in traps. Two or three Nyctimene shot by Lionel last night; a big Pteropus by Rus. The spare boys, out this morning some distance inland in the primary forest (?) got a very different looking adult Pogonomys and a half-grown young one. Body short, tail long and heavy, feet very big. Must be a new species. This evening Lionel shot at dusk a russet Miniopteris new to the collection, unless it is a color phase. This makes 8 species for the camp to date. Not bad for an area largely deforested.

Learned this morning of old gold mining tunnels in the lower maountains, made by Tom Morley before the last war. Rus went up to the inland village this afternoon to arrange for an excursion to the tunnels Tuesday. Two inland villages seen by me this AM. Visited only one, Erimanoia, where the councillor liver, c. 1½ miles inland and at about 400 ft. Clean place of 15 mostly big houses.

Botanized mainly in relic strips of primary rain forest left in the gullies.

Apparently a strong endemic element, also a considerable number of species which I also collected on Misima (white-flowered Proteaceae, Symplocos, Nepenthes mirabilis (without mousey odor). Found on the grasslands a Velleia (Goodenoviaceae) a genus I have only once collected hitherto in the new Guinea - west of the Fly River. Picked up the fruit of a winged dipterocarp which I could not otherwise discover. Different from the tree of the Misima mountains (fruit much smaller).

Monday August 20: A scud of rain at dawn (5:45); others through the morining. No drizzle in afternoon; Rus had his mamal trays on an outside drying rack.

Lionel at last has left for the mountains. Got away at 7:15 with 3 carriers, 2 spares to cut track, and the councillor as guide. Probably he will strike wet weather above about 1500 feet. The SE continues, piling clouds on the mountains.

A backlog of plants which I did not have time to prepare yesterday, kept me in camp until nearly 8 o'clock. Then went along the coast, west, for rather better than 2 miles. Collected 17 numbers; some of them still on hand, as I have run out of driers. This seldom happens . Have averaged 16 numbers a day for the camp. Not bad for an area largely deforested and occupied by migrant grasses and associated herbs few in number. An unexpected find was an Antidesma (probably A. ghaesembilla) which I on't remember seeing this side of the Port Moresby Grasslands (it grew on grassy edges of the mangroves).

Nothing in traps last night, although one or two new lines were in operation. Last night Rus jacked a Dobsonia and a small Pteropus. Six Nyctimene were caught in a net set at a fruiting Janbosa tree within a few feet of the resthouse we live in. Today Tubuka and Simp Sipoma brought in 5 Pogonomys cut from trees, and VC Bom contributed two more. This Pogonomys is a beast very different from those we got in the D'Entrecasteaux. Has a skull squarish on top, and three lines of cusps.

Our Gloaiagos give evidence of being happy on Sudest. They have been singing for hours in their quarters this evening.

Tuesday August 21: No rain in the 24 hours. Mountains (Riu) clear till at least midday. Natives are burning the grass again after the rain.

Botanical project of the day was the collection of the tree from which the "gum" of the island is collected for export. Had VC Bom as guide. Came upon the trees in primary rain forest of the little valley of Vulunitu stream, about 2 miles inland and altitude of 400-500 ft. Vatica sp. probably papuana, called Guimbur by the natives. This produces a reddish gum (so described by Bom) which is the chief product sold. A whitish gum (no doubt a resin) is obtained in small quantity from a dipterocarp with winged fruit, called Waloi (said by Bom to be called Rul on Misima) which occurred abundantly in ridge forest further inland. This dipterocarp as plentiful or more so than any other tree in the forest of the ridges, which have only fair timber volume. A common larger tree is the Syzygium I collected on Sunday. The Vatica where I saw it was the commonest canopy ~~xx~~ but small (about 20-25 m tall x 30-40 cm dia.).

Rus, with a guide and two or three hangers-on from Erinamoia village, made a 7-hour excursion to a mine tunnel much farther S or SW said to have been made by one Manning. A well dug tunnel, according to Rus, which went in a long way, but could not be entered far because of deep mud and water. Literally thousands of bats flew out when a shot was fired into the tunnel. All Miniopteris, but in two sizes and probably two species. About 30 collected with switches outside the tunnel.

Lionel returned from the mountains at noon - unexpectedly early. With good travel, he reached a camp site in the forks of a fair-sized creek at an estimated 1000 feet, at the foot of Mt. Rattlesnake (or Riu) in 3½ hours from Joe Landing. From there climbed nearly to the summit of the mountain, past Eichhorn's reputed camp site of 40 years ago. This took 2½ hours. No water near the Eichhorn site. A good second site for a camp on the track about 400-500 ft. above the creek, on the crest of a broad ridge. Mossy forest conditions not encountered anywhere. Description of the second camp site appears to indicate oak forest, and Tinker carried an acorn back in his pocket. Rather disappointed in the report. We will not be able to camp as high on the mountain as I hoped. The summit area should be attainable for botanizing from the second camp site. Altitudes are, or course, estimated, now that we have no aneroid.

Had my first sight of Riu from Erimanoia village on the way into the field this morning, and another view from a ½ mile or so further inland. It would be an exaggeration to call the peak a Matterhorn, but it is steep towards the summit and very limited in area. Viewed from ca. NW there is a side pinnacle a few hundred feet from the summit; Eichhorn said to have camped in the saddle between the pinnacle and the main peak.

Have send out word for at least 35 carriers for early Thursday morning.

Two native sailing canoes from Grassy Island put in at dusk to spend the night at Loe Landing. Said to be on a sago-making expedition. Canoes each with 5-6 people on board (men, boys and women); rigged with a lug sail (European material).

<u>Wednesday August 22:</u> A lot of high thin overcast today, but no rain. Strong SE wind at times.

All busy with preparations for leaving for the mountains tomorrow. Joe Landing has yielded me for 6 days 103 numbers of plants (7 of them bryophytes) and 603 sheets of specimens. A better collection than I expected from a locality largely deforested. The relic rain forests in gullies on the slopes have yielded a good number of trees in flower or fruit. This has been the poorest camp yet for insects. Hardly anything most night from the light trap. Few butterflies and odonata. The best yield has been in spiders. Eighty mammals taken, ~~9~~ or 10 spp.

For the second day in a row, Lionel spent about an hour on the reef with his fishline and a borrowed canoe. Another good meal of fish; the only one I know of four spp. being a red emperor.

For the second night we have been listening to U.S. Armed Forces radio reports on the GOP presidential convention in the Cow Hall, San Francisco. A lot of Hoop-la so far, with indications of a fight coming up on Nixon for Vice-President.

There is probably a correlation between the scarcity of insects & small bats at Joe Landing. Only three insectivorous bats of two spp. were seen at dusk, and one, a Rhinolophus, shot.

Thursday Aug 25: Good fine day, though considerable high overcast. As usual when we are on the move, the weather was fine but conditions not favorable for color pictures.

Left Goe. Landing for Mt. Riu at 7:35 AM with 39 carrier loads. People in good fettle. Some came from as far as Griffin Point last night, either to be in the show, for the pay, or perhaps because of word of our coming being spread by Mr. Zed of Bougainville while on patrol at the time of our arrival on Mbirine. Had with us, besides the carriers, 5 councillors & a village policeman. Crossed VUKUMITU Creek at 8:30. (In the cannibal raiding days, at the time of the present elders' grandfathers, the Goe Landing people, returning from forays to the slopes of Mt. Riu & thereabouts, propped up their dead victims on a chair-like ledge of rock on the ridge of the creek, faces painted & looking back up the track, having a last look in the direction of their country). From there a steady climb of perhaps 500 ft. to crest of the central divide of the island, reached at 9:40 after a 10 minute rest at the last water. Difficult to judge altitudes; track in dense primary forest; but altitude of crest perhaps 1500 ft. Travel up & down along the top. Rest of 15 minutes when the track began to descend rapidly for the valley of a fast-rigged creek. Reached the creek at 11:05. Tionel camped here on his survey trip. Altitude estimated at 1000-1200 ft. Creek called ESILAYA. Had tea & good hearty beefy beef sandwiches with Tionel, who reached this spot half an hour before me. Then on up a nice open ridge in the direction of Riu for 20 minutes slow walk to an alternate camp site selected by Tionel. Decided to camp there. Altitude perhaps 1400-1500 ft. Good site on a small knoll with a little stream of running water handy. This the last water found ~~above~~ by Tionel on his recce. trip. Altitude too low, but the best we can do. Still in a virgin rain forest. Saw no oaks or Casuarina. Much Vatica in valley of the creek where Tionel camped. Changes take place in the forest, but it is hard to define them or to recognize characteristic trees. Very little seen in flower or fruit.

Cleared the camp site this morning have a fly & the two ~~tents~~ tents rigged, plus a cookhouse roofed partly with bark & partly with palm leaf. Palms are scarce on the crest except where there

in 1920. Carson paid & went home about 2 o'clock; 6/- per load, 5/- each for the councillors & V.C.

Friday Aug. 21: Fine day but considerable heavy cloud from about east. The wind at camp comes up valley from the west.

Mt. Rio, on direction indicated by Lionel, lies 105° magnetic from Camp.

Camp rigging practically completed. In the general fashion of rounds, we have one boy off duty today with a swollen groin, as a result no doubt of yesterday's walk. Another boy with mild malaria - cooler climate.

Gathered a few plants around camp. Made color photographs of white & purple Geranotonum # P.7811, collected on the trail yesterday.

Were visited by 3 men from HULA village on the S. coast. They want to work for us. The night pit carriers from the south coast for our return to Port Moresby.

Were traps out last night. No packing.

Saturday Aug. 22: Il shower woke me at 3 AM. Then rain at dawn & after; then fine about an hour to 2 PM.

Nothing in the few traps set last night. Lionel & Ries out packing for a while. Lionel fired some shot but got nothing. Two Pogonomys & 2 Dasyuroids cut from traps by the mammal boys Lik-Lik & Double.

Showers kept me in camp until 7:45 this AM, when I set out for Mt. Rio. Followed the pig-hunting track which was Lionel's route a few days ago. It went ca. East for 1½ miles & perhaps 200 ft. altitude, then swung sharply ca. north along the crest of a narrow lateral ridge, rising several hundred feet to the now hardly recognizable site of old TIMITIMABATA village. Then about east again, more or less straight for Mt Rio peak. Reached the end of Lionel's cut track at an estimated 2,000 ft. Cut track for 1½ hours from there & reached what appeared to be the lower slope just visible from near Francisco. Clouds then closed momentarily to give me a glimpse of the true summit, about ½ mile to the south & 200-300 ft.

lighter than when I started. Now snow covered my small coat: Tolypiphyllum, Phlebastemonanthe, Myrmecodia, broad-leaved Timonius. At Tamili stopping place I collected a fine, fragrant white Rhododendron growing as a slender shrub in low scrub edging a precipice. This altitude seemed to mark the limit of a big Lacryodium abundant for 300-400 ft. lower down. Gathered in all about 10 spp. of orchids in flower including 6 Dendrobium. One of the dendrobs is the big spotted white sp. of Phisima. Mist, rain, & track cutting hampered my collecting. Got back to camp, wet under my rain-coat, at 3 PM.

Fine, starry night. Only two boys out packing.

Tomorrow, weather permitting, will finish cutting track to the top of Rio tomorrow. About 2-3 hours cutting from my highest point, I estimate.

Sunday Aug. 6th: Overcast most of day; no rain. Had to spend about two hours in morning waiting for brief spells of sunlight to photograph some of the plants collected yesterday. There is always the problem of cloud & wind in doing the photography.

Spent the day in camp, making pressings, & preparing yesterday's gatherings (35 numbers). Included was a small, yellow-stemmed, very slender Tolamnia, the first of the genus I have collected in the Tomisiedes, & apparently identical with a specimen of Woodmansey Island. Saw a much larger species on the mountain yesterday. No Tolamnia seen on Phisima. The Tomisiedes are very poor in palms.

Nothing in traps last night, nothing shot. Rio packed for 1½ hours tonight for no results.

Today Lionel took four boys & finished cutting track to the top of Rio. About 1¾ hours cutting from my last point. Track not too bad.

Since the day before we left for Tawchang I have had trouble with my left shoulder. It might be rheumatism, or a coincidence that it is in the shoulder I dislocated on Mt. Dayman in 1953. It could be something else. I have not had rheumatism before.

Thursday Aug. 27: Some showers in morning & a slight one at night fall. Back of Rio under a drizzling mist & fog all day.

Attempted Chi-Rio (Rattlesnake). Left camp with my two boys at 7:20 & returned at 4:10 - nearly nine hours without food or water. A difficult mountain to its attempt. It is so steep to the south that climbing from there would be out of the question. It spur from the west offers what looks like a good approach from HIMAI Bay. The ridge to the SSE (continuation of the backbone range) appears to be very narrow & up & down. I caught only partial glimpses of it.

Had doubts about the weather when I left camp. At 8 o'clock, when I was near the 2000 ft. level, rain began & for 30 minutes we sheltered under a poncho carried for the purpose. Decided to turn back, & started to collect. At 10:10 the weather looked like taking up, so I resumed the ascent - it is too gradual most of the way to be called a climb. Reached Tiemi's lookout at 10:15 (no view at all from there on way up, but fine panorama of HIMAI Bay (?) on way down in afternoon). The far point of the ridge (about 2200 ft.) reached at 10:35. From there I travelled slowly, searching the shrubby forest for Nothofagus, which I could not find, & reached the summit (2654 ft.? Have no map in camp) at 11:00 o'clock. Only a few really steep pinches. Taking over time, the ascent could be made in about 1 hour & 30 or 40 minutes from camp, excluding rest stops.

On the way up, Lycopodium first appeared at 8:30 (c. 150 ft.) & ended at Tiemi's lookout (c. 2000 ft.). Tree, zenith-stemmed oaks formed a small strip of pure forest on the narrow, very clayey spur crest at about 1600 ft. & were not seen elsewhere. A patch of giant Gleichenia fern in a small saddle under Tiemi's lookout perhaps indicates Eichhorn's camp site of 1915 or thereabouts. Between my lookout of the 25th & the summit the forest is low, more or less windclipped scrub 15-20 ft. high, fairly heavily mossed. Two slender tree-ferns (Cyathea) collected there. A pole further-based palm (recalling those of the mountains of Moroncay & Zamora) is scattered through the scrub & conspicuous when one looks over the scrub, but was not in collectable condition. On the summit, the scrub apparently was low enough to be called shrubbery, but it had been completely wrecked by Tiemi & his boys yesterday. It encircles (only) level bit of ground about 30 ft. across on top. From the appearance of the wreckage, the

summit scrub was composed largely of a red-flowered Melastomaceae & two Lauraceae (one with anise-scented bark). These spp. were very plentiful down to my lookout (also a Telopteryx, which was on top, too). The white Rhododendron had been common on top (collected some old capsules which I will examine for seeds when dry). Red-hairy Frankenia on the trees. Most abundant bryophyte was a fuzzy green hepatic (# 27891) on the tree trunks. Bases of the stunted trees lined with moss-covered rocks. Not much moss on the ground. Mountain summit probably under cloud most of the year.

Nothing in traps. Two Sciuromorphs, gray rather than brown in color & with black tails instead of brown, cut from a tree by the mammal boys.

Tuesday Aug. 28: Rain began about 12:30 last night & did not clear off until about midday. Sunny afternoon. Spent most of the day preparing yesterday's gathering of 35 numbers of plants.

Last night, when the lamp was being carried from my tent (where we have our rum and water) to the preparation fly, where we eat, a great atlas moth fluttered to it and was slapped to the ground & caught by Lionel. The almost perfect specimen with wings 11 cm. in length. Photographed it today.

Out jacking for about 3 hours last night, Lionel shot a Phalanger, a Petaurus & a yellow-caped Pteropus. Tinker got probably the same species of Pteropus, but the cape was much darker & there was irregular white-blotched coloration below the cape. Nothing in traps on the two bait nes rigged.

Since Sunday, Lionel has had a cold or mild flu. Now Ken has it! Grubb has malaria, brought on by the rain, no doubt. Since a bad attack in the mountains of Ferguson two months ago, he is supposed to have been on a weekly preventive dosage of camoquin.

Wild pigs go high — to at least 2000 ft. — on the mountain. Many rootings in some places. The stiff yellow clay would appear most unproductive of food. On all the slopes, including the camp at about 1000 ft., there is only a very shallow cover of humus over the clay. The trees of the forest spread innumerable stout roots only partly covered by duff & humus. These roots make worn paths very uncomfortable to walk on with boots.

Wed. Aug. 29: Some heavy rain last night; weather cloudy until at last midday. Showers at intervals through the day, mostly heavy.

Botanized down a lateral spur which runs from camp down to the creek. Fair results. Two spp. of Gyalecta (4th. & 5th. for Fiji) & a purple-stemmed saprophytic orchid among the most interesting. The rain forests of the locality seem to have a fair variety of canopy & large trees, but are very poor in undergrowth, lianas & epiphytes. Even the banks of the big creek are poor. A good case of geographical alternation? or perhaps the poor yellow clay may be an important factor? The creek rocky & half-gassy up to near where ~~Fiona~~ Fiona had her night camp. From there a sudden change to flat broad bottom & stony (or gravel) shingle.

Again nothing in traps or bat nets. The nets moved to the top of the ridge above camp. Sacking last night, Ross got two Pteropus hypomelanus, Fiona a Pteropus & a Pteralopex.

Tonight Fiona & Ross boy Tinker have 10 moves set in the valley to the south of camp, where Fiona reports many small rockings in the forest. Ross did not bring any steel traps to this camp.

About 1.30 in the afternoon the Sou Rauding councillor & two young men arrived with meat & packages which Julian Twomey put ashore this morning. Of letter from Twomey: Only 41 of ~~62~~ 56 packages shipped to us from Jamaica arrived at Vanua on the "Mariana." Twomey does not want to transport us to Rambusa in a week's time. Plans to be in the Talwadas there at that time. Fiona will go down to the coast on Friday & go on to Vanua to see what he can arrange.

Sandflies have been bad in camp the last two mornings before breakfast. Found several small brown leeches crawling on me in the forest this morning. Boy boys often pick them up on their bare legs after rain.

Thursday Aug. ~~31~~ 30 Bright, sparkling day after a rainless night. Sandflies bad in camp this

Botanized down the south-trending spur to the west above camp. Most interesting plants a big Melastomaceae? common on these rather characteless forests of the ridges, a big Gordonia, & a tree-fern (Cyathea) which I think I have collected on the island before.

No mammals in traps, nothing in Tienti snares (a total of 25 set tonight). Tienti jacked over two hours last night for nothing. Of 60 set, on a new set on the spur above camp, yielded 3 Monoglaux — new for the island.

For breakfast we had rats caught by Tienti helpers last night after packing was finished. Hard-fried with their skins on, the rats were rather disappointing. Tomas Ruz, who gobbles up fresh meat of any kind, had only one piece. Last night, in the same creek on SE of camp, Tienti caught for the collection two sp. of mayfish. One, large & brownish, looks like a species we took on Musima. The other, small, black with red behind the head above clings to the rocks in very fast water.

Friday Aug. 31: Another fine day with no rain in the 24 hours. The mountain clear when I saw it from the spur above camp about 7:30. At 11 or the summit was clouded over.

Collected in the valley of the stream to the SE of camp (this runs to RIO). Little of special interest. The flora here is poor. Moreover, I have on hand more material than I can dry.

Ruz with his two boys left some time in the morning to spend the night on the mountain. Took Tubega as a carrier; he returned about 5 o'clock. They are to camp in the saddle at Tienti Lookout, where I think Eichhorn also camped. Have hope, if 60 set, it will pack. I expect them back tomorrow.

Tienti to go Tandang. He will go on to NIMOA ~~Tom~~ tomorrow (walk along the coast, then across to Nimoa by canoe) to arrange for our transportation to BAMBUSO (on Friday or Sat., if possible) & to Dumol (Friday Sept. 28).

Sat. September 1: Hl heavy shower at 3:30 AM. Rain through much of the afternoon. Yesterday felt better than usual & at 3 PM the thermometer stood at 81°F. in the shade. The lowest temperature noted here is 71°F.

Collected down to Lionel's camp, then up the creek for perhaps ½ mile. Hl fair log. Upper terminal point was at a waterfall about 30 ft. high, below which was a small basin more tropical in appearance than is general for the locality. An ample hardwood larger growth most of the forest a foothills appearance. Hll hard timbers. I have not met with a second growth tree in the locality.

Just returned from the mountain with nothing to show for the trip. Had out our 100 traps. Jacked for only 20 minutes, found most of the ridge too steep. Went to the top of the mountain before starting to rig camp yesterday morning.

No mammals in traps set by the creek, or in Lionel's traps, which now number 25.

Galvanna, who went to Goe Landing with Lionel yesterday, returned about noon. Hl letter from Lionel intimates a bad mess in the delivery of our Iquirianá cargo. Sixteen items are missing, including all kerosene (7 drums) and sugar (2 bags) ordered, 2 boxes of ammunition & some of my collecting supplies. Hll collecting supplies were consigned in error to Iquirima, instead of Manaos, & I thought that if they had been put off there they would turn up at Fudesi within a week or two. Today's news is disturbing. There is no knowing when our missing cargo might be. Russ has ammunition & I have collecting supplies that will last perhaps another three weeks. We doubtfully have enough kerosene or sugar to last that long. Kerosene is essential for drying botanical specimens.

Sunday Sept. 2: Hl sharp shower at 6 AM set the weather pattern for the day. Morning about half rainy, afternoon overcast, with a few sprinkles.

Ran a double shift with my oil drying oven yesterday, which kept me awake to near midnight. This AM I still had all of yesterday's gathering unprepared, so stayed in camp. Sent the boys out for awhile & they brought in some new things, notably a fine climbing palm Phedimilla (photographed), a Serrano with leaves much taken

by insects (apparently when the leaves are very young & without chlorophyll), a Tacianthus with big white flowers & bright blue fruits, & a Begonia with white flowers. The flowers of the Begonia are small & the species looks like B. of Prisima.

Rus & Kim jacked last night, for nothing. Nothing in 140 traps & 25 snares. One Phascogale netted. Tubuga brought in three Sequoias, cut from a tree.

We are on our last tin of tea. As I am the only tea-drinker now in camp, I told the cook to make less tea than when Lionel is here. He reduced the amount of water in the pot & put in the same amount of tea, making a brew undrinkably strong. Most of our actions are just gestures to the natives. They see no reason a meaning in what we do.

Monday Apl. 3. Beautiful fine sparkling day with strong SE wind dying down late in afternoon. No rain in 12 hours.

Had a disappointing morning down the creek which, with its main branches, drains the enclosed valley under Mt. Ric & the rest of camp. Lionel reported a big stream "like the LEBADEA" on Noorndoo. I found a creek not half as big, dim, gorgy, with a bottom of slippery rock almost sterile for plants. However, on its banks I collected a slender palm, common there, including a Calamus. This makes 3 palms collected on the island. I have seen four more, all sterile: a big Orania, a Zingiberaceous-like undergrowth species, Tacyta, & two sp. of Calamus. We collected saprophytic Tacaphila. Lionel went out in afternoon while I prepared plants in hand. They followed up Lionel's camp creek beyond the waterfall where I slipped a few days ago, & collected many things new, including a big-leafed Pleurantoma I had not seen before.

Nothing in traps or snares last night; a Pelaurus & a Petaurus jacked by Rus; one Phascogale netted.

Saw my first snake for the drought, a slender black which Tubuga later collected. This morning he brought in a very large Varanus indicus skink, the biggest seen on the trip. Two species of snakes collected here.

~~Thursday~~ Tuesday Apl. 4 Clear down followed by a day of high overcast driving from the SE. Slt sprinkle of rain in mid-afternoon, another about 7:30 PM.

Very last collecting day in this camp. Climbed the leading spur towards Rio to nearly as far as old TIMI TIMABETA village site. Only 9 numbers collected, the most important probably being a small simple Tchigaua (second sp. for the locality). Also collected a common Abyssia – a canopy liana with very warty dark stem. Then running a night shift with the plant dryer to cope with a big lot of material on hand.

No mammals got by traps, snares, lai nets (?), or Russ jacking last night. This morning Russ is unwell and only Ek-Lik is jacking.

Kim the cook, about the worst hunter in the world, has done little else for two or three days but hunt pigeons (big blues). Got one bird yesterday and one the day before. Nothing today & we ate beefy beef stew for dinner, plus some sort of tree leaf that Kim gathered in the forest.

Wed. Apl. 5 Slt very strong wind sprang up in the early hours of the morning. Another day of high overcast & sun. Light rain 3 PM – 4, heavier after that.

Finishing up on plant drying (there will be material still only partly dried to carry to the coast), & packing green & collections. I have for the camp 205 numbers including 27 mosses & hepatics, 947 sets of herbarium specimens. Not a bad gathering considering the poor flora of these unbroken rain forests. Slt mixture of second growth conditions would have meant many more plant species.

The camp has been poor indeed for mammals. About 151 traps out have yielded not a single specimen. I have never before seen trapping great that bad. Results from jacking have been indifferent. Only 31 specimens of the following mammals have been taken at the camp: Sciaurus, Steropes hypoleucus, Phalanger orientalis, Phaenglaurus, Sebosus. The stock time in mammals, bad & more attention being paid to birds. Total 192 frogs, 5 snakes, 6 lizards (skinks). The dry forest environment is not favorable for reptiles.

In insects, only a few specimens of butterflies & a few sp. of Odonata were taken. Light trap material fairly rich in beetles, only a few moths. Best moth we drove a fine 18 Mm moth knocked to the ground at night by Lionel.

We have apparently a great surplus of carriers for the morning. Some are here in camp, others in a shelter down on the creek. Reported to be here are 10 from MADAWA & 21 from PAMELA on the south coast, and 17 from Joe Landing. It is 5:30 as I write and there is no word from Lionel. When we were visited on August 24 by three men of HULA village, south coast, Lionel said something to them about getting south coast men for our return carry to Joe Landing. There could have been no definite arrangement because no man of authority was here from Hula & on August 29, when the Joe Landing councillor came to camp with mails, Lionel spoke to him about carriers for tomorrow. We need men; 47 men when we need 30 at most. It is still raining steadily & the people will be hard put to find shelter under our two flys, the cook house, & the small leaf shelter down on the creek. Joe Landing people say that Lionel has not returned from Nimoa.

Thursday Sept. 6: Transport for today looked like a doubtful proposition when heavy rain began at 12:30 last night and continued to 4:30. There were showers after that in the mountains, but not heavy enough for me to use the raincoat I carried all the way to Joe Landing in my hand.

Resolved the surplus carrier difficulty by presenting all spares (27) with a stick of tobacco ~~xxxx~~. Left camp at 7:45 with 26½ loads, arrived at Joe Landing at 11:35. I did a little collecting and made some photos on the way. An easy walk. I am on my feet as long every morning.

Found at Joe Landing that Lionel has arranged for Bill Callanan of Modewa Bay to take us to Rambuso tomorrow; price 20 pounds, which is reasonable. Lionel is at Nimoa and will return with Callanan. All stores seemed in order in care of VC Bon in the resthouse. Pinned specimens that Rup left were quite dry and could be packed this afternoon. Plant I left in drying papers were also good and dry.

Feel glad that the Sudest mountain work is over. Mt. Rattlesnake (Riu) always looked so remote from New York.

Thursday Oct. 11: A very wet day. Heavy showers from before daylight through afternoon.

Left Abaiang with Hugh Osborne on the "WAEI-WAEI" at 3 PM. and arrived TINTO 5:40, just before dusk. Took the inside passage. Calm water except in one place, probably opposite a break in the reef, and mostly very shallow. Intricate pilotage. Touched bottom a few times. Good small wharf of beach timber at Ginju. Good rest house among coconuts and mangoes on the beach, neat in shape, with sawn timber floor, and fan-palm roof. Then met at the wharf by Brother Tantwell of the Catholic mission (Father Tarte was at Abaiang to meet the "Mamiara"), who invited us to dinner. Excellent meal nicely served. Used table napkins for the first time in a European house in the Gilbertese. Father Tarte & Bro. Tantwell live in a thatched 3-roomed house with board floor. Three sisters apparently have similar quarters. A convent of permanent construction is now being built. The mission was established, I think, in 1947.

Did some sorting of cargo after dinner. Very heavy rain while we ate. Hugh departed for the next bay east along the coast. He would not have had enough water to get away from Ginju at low tide. The "Waei-waei" needs a good tide for the trip between Abaiang & Ginju inside the reef.

Friday Oct. 12: A threatening ~~an~~ dawn. But as carriers were waiting, decided to have for the mountain. The usual delays while the carriers assembled — some from Ginju, some from East Point, some employees of the mission. Got away with 34 loads at 7:25. Crossed a mangrove swamp behind the rest house, then began to climb through a small coconut plantation of the Gilbertese (Spathoglottis flowering among the palms). Primary (also secondary) forest immediately above the plantation. Soon a new garden of good size, being planted mainly to taro, and unfenced. Mostly second growth then to DANIBEMI hamlet at about 600 ft. & overlooking the barrier reef and Abaran Island. Fairly steep slopes to that point.

Rested 15 minutes at Danibemi (35 minutes from Ginju). Then began a long, gradual ascent through fine tall forest. At round about 1000 ft. passed a 3 old village sites with coconut & betelnut palms and ~~—~~ run-out bananas. Good

government road showing evidence of long use. Crossed several small streams, running murky from rain this morning. At 9:15 rested from a point where a saddle in the central mountain ridge could be seen several hundred feet above us. Some deep rock crevices here from which Lionel collected Diplopoideros on his survey trip. Heavy rain kept us there till 9:45.

Beyond this rest place a little, after crossing a fair sized stream, the track divided, the regular route to Abaleti going right, an old, little-used path going to the left. Followed the latter. This soon split again & there was confusion and indecision among our people as to which branch to take. The right hand one was followed and it soon ran out to nothing. Made our way back to the other branch and after a long fairly stiff climb, reached the saddle on the mountain at 10:50. Evidence of a frequent cloud blanket some 200-300 ft. from the crest. On top, Lionel had partly opened up a camp site. The ridge was narrow, & rough with rocks, but decided to camp here rather than at another possible site about 500 ft. lower down, in tall, gloomy forest. Sent word back to the carriers and Ries, who were waiting at the alternative site, & we had a fly temporarily rigged before more heavy rain began to fall.

During the afternoon the clouds lifted for a time and we had views of Tea (Adele) Pd on a bearing of 112°, & of the summit of Mt. Bonnet rising about half a mile away and 400-500 ft. above us on a bearing of 25°. The summit a sharp back of very limited scope — like Mt. Rio on Tudeni. From camp the main ridge curves SW and W, rises only a couple of hundred feet, and appears to broaden. Our best collecting for plants will probably be in that direction.

Our carriers were a pleasant, willing lot. They fell to with knives & axes they carried & open up views from camp. Few of them had been here before. We gave them a feed of rice after their day's pay off, & they departed about 3 o'clock. Some of them quite tall men for this part of the world. One, a councillor from East Point, & perhaps of chiefly blood, was pale skinned, short, with Wandathai head straight, pronounced hair, and very prominent protruding buttocks. A friendly, intelligent man.

Eric Osborne and his family, about 30 years ago, camped where we are now. His clearing is marked by tall tree-ferns, & an illegible name cut in the bark of a tree. Our older

natives told us that a government man named Garrison once camped here, & that a "good" track, now overgrown, leads to the summit.

The mountain villages on our route were abandoned by government (we don't? ANGAU) orders during the war, we were informed. The people moved down to Sinjini but they still use their old garden grounds.

Monday Oct. 13: Was kept awake much of the night by condensed mist dripping on my tent from a tree overhead. Light showers began toward daylight & lasted to mid-morning. Ridge & peak then clear most of time to mid-afternoon. All other times mist, driving on a strong wind from about east over the saddle.

Collected a few plants about camp while my boys put in a work table and storage shelves. Palm trunks and lying material (Calamus & Hedyscharis) available in plenty. Other boys doing the regular jobs of rigging camp — work and storage facilities, latrines, etc.

Rus unwisely tried on a slippery pole in camp yesterday, fell & hurt his back — not very badly. He spent the day lying down. Notes out this evening by his boys.

Tuesday Oct. 14: Very heavy rain at daylight, followed by a dark, misty, cloudy, showery day. Bad for field work.

Collected a few plants at camp, then followed the track toward Abbotts. Track went along the side of the ridge, losing altitude steadily. Forest 10th (ca. 70-80 ft) then & much undergrowth. Conditions wet; visibility bad. Found and collected with a few ripe red fruits, two species of nibbage palms with feather leaves. An epoxy nacous canopy tree with very fragrant big white flowers was especially good.

The old story of nothing in traps. Lionel and Kim, jacking last night, shot three cuscus, a brown Phalanger, and a Macroglossus, besides picking up an amethyst python 7 ft. long & a big brown tree frog.

Camp rigging, which because of the exposed position & rough rocky ground, has been a bigger job than usual.

was completed today.

About half dozen Finja men & boys paid us a visit, bringing 10 eggs (bought for 8 sticks tobacco) & 6 papayas. No rain down below, they said. They did ~~not~~ not stay more than an hour in our mist and rain.

Monday Oct. 15. Very heavy rain from about midnight to midnight. Completely misty day with occasional light showers. One of the worst spells of weather I have experienced. This is the 5th. day of it. The forest is saturated & dripping. Wind (a cloud drift) from NE today.

The weather kept me in camp to mid morning, after which I made for the peak. Followed the narrow ridge out by a track cut by the mammal boys, then cut beyond that to the foot of a rock face ca. 200 ft. high on the north side of the peak. Could go no further on the precipitous slope. The rock face overhung, & being on the lee side, gave dry conditions. A fine white Hoya grew high on the rocks & out of reach. On the rock face were one plant each of the purple lobelia Gendrobium of Mt. Sebirema on Normanby (an orchid present on the mountains of all the islands we have visited) & a pale violet Boea. Never have I seen a tropical mountain so poor in orchids (only 3 ft. elsewhere) (ca) and ferns. The Boea (one as a whole is the prettiest flower I am collecting plants quite new to me.

Again nothing in traps. Rain spoiled jacking last night & only two Macroglossus were shot. In nearly three weeks on Rossel all mammals but one rat have come from the guns. Now it develops that we are running short of ammunition, batteries & bait. We can make rat bait from supplies on hand. Batteries can be bought in Tamarai when we reach there about the end of November — or perhaps from a trade store. Ammo is a different matter. No shot smaller than threes is available in Tamarai. Will have to order from Australia. We came out with an ample supply of cartridges. It has been squandered on bacon of pigeon for the table, without my knowing that a shortage was developing.

Mail came by native messenger from Alotau. The "Mariana" arrived yesterday after being missing for some days (with radio out of commission). Tank typewriter by me, and tobacco by Lionel, did not arrive. Lionel left for Alotau after lunch to inquire into matters — also, I suspect, to

got some gasoline oil. This was forgotten in the packing at Ebolé & I'm not supposed to know anything about it.

#

Tuesday Oct. 16: No rain last night. Rain mist today, few showers, & some rain in afternoon. Wind from ca. NW. This afternoon we could hear the breakers on the reef off East Point, a sound hitherto drowned by wind rustling the treetops.

Botanized south along the crest of the range, cutting track for an hour past the end of the packing trail without coming to the "No. 1" road to Ebolé. Rare forest, shaded to a zonal on some narrow crests, & showing no variation in composition.

No mammals in traps. Mice spoiled packing last night by the boys. 18 small Hipposideros caught in a bat net. This is the first insectivorous bat we have caught in a net.

Hugh Osborne came up to see us, traveling from Ebolé in three hours. After lunch he went to the top of Mt. Rossel, guided by some natives who came up from Grape with fresh food. Found there a wine bottle with the rotted remains of a note in it, left on the summit about 30 years ago by Eric Osborne. Trail difficult in two places.

Lionel returned, alone, from Ebolé about 3:30. These natives from Grape brought a nice lot of sweet potatoes, papaws, pineapples, & a few limes, tomatoes, greens, & plantains for which I paid 12 sticks.

Wed. Oct. 17: The first day & night here without rain. Not much mist, either, until late afternoon.

Botanized to and past the waterplace gully in the valley to the west of camp. Nothing worth special remark except a big Calyptrocalyx, the third palm found with ripe or near ripe fruits at this camp & the fourth on Rossel. This expedition has been poor for palms. There were few species on the other islands of the Louisiades, & up to this time I have not been able to collect any ripe seeds for the Fairchild Tropical Garden. This afternoon I have boys cleaning seeds of two species.

The usual story on traps. Rees & Hugh went packing last night for no results; Rees shot a cuscus. 18 Macroglossus taken in the bat net. Various kinds of

bait being tried tonight – cheese, cuscus meat, sweet potato.

Ron Osborne arrived at noon from Finja, having carried timber for the mission in the "Wai-wai". Hugh left for Finja about 2 PM, to take the boat back to Ubaldi. After lunch, Ron & Lionel went to the top of the mountain. Clouds spoiled the views & no photos were taken.

Thursday Oct. 15: Another 24 hours without rain. Mist to ca. 9 AM.; after that clear except for a broken overcast low enough to cut off the top of the mountain at times.

Spent half the morning working on specimens on hand (worked a shift on the dryer last night; things not drying well). Then, with Ron Osborne, my two Colony boys & a Bonni Islander of Nois, went to the summit of the mountain. Did the climb of 400-500 ft. in 40 minutes. Some very steep places, one, a rock face, being dangerous. I used a rope on this. We were fortunate in having good views from the top, especially of Ubaldi anchorage ~~to~~ the Finja coast, and East Point. Could just catch a glimpse of Tonggo Bay on the west end of the island. Left my name in a bottle which Ron & Lionel ~~[illegible]~~ placed there yesterday (in a 1 lb. formalin bottle tied to a tree with monel wire). ~~[illegible]~~

Mt. Bonni, 2750 ft., does not seem as high, when one is on top of it, as Mt. Rio on Fedeni, 200 feet lower. It is even more limited in area than Rio & its flora is poorer. Top covered with a dense, rather mossy scrub 10-15 ft. high in which a Metrosideros (?) (steele) & a Timonius were the principal elements.

My idea of bait changing brought no results from Nopi. But there were good results from two boys sent out last night with a Coleman lamp to hunt for frogs. Lionel, out jacking, shot a cuscus. 18 small Hipposideros shot in camp by Ross.

Ron returned to Ubaldi after lunch.

I have decided to close this not very profitable camp on Saturday. Two days ago, when a Finja councilor was in camp with fresh food, I asked for 33 carriers to come up the mountain Saturday morning.

Friday Oct. 19: 1911 last night the moon shone brightly, our first clear night & first glimpse of the stars at this camp. Same sort of overcast day as yesterday. A slight sprinkle in afternoon.

Botanized along the track as far as Tichborne's camp site towards Ulaula. Collected a few good things including a fourth species of palm for the camp, & in Tichborne's old clearing, a small tree Quintinia. Have on hand more material than I can dry & tonight will work another night shift with the oven.

Traps yielded a half-grown Hackish brown female phalanger; first mammal trapped here (Kim the cook got it); bait was a bit of sweet potato. Another Hipposideros in the bait net, also a Macroglossus. Ate cuscus that last night by Lionel.

The Osborns sent up, for nailing to a tree in camp, a heavy bit of sheet lead with the history of the camp site stamped on it. The Osborns were here first in 1908. See attached writing.

Saturday Oct. 20: A threatening morning with enough rain to wet the tents and flys before we could get them down at the mountain camp. I left at half past eight, to collect on the way. More than enough carriers were met traveling up the slopes soon after I started down. We had 31 loads. The transport arrived at Jinju before noon.

Nothing in traps last night. Four cuscus shot by Tinker with four shells.

Had very good collecting on the track. My best day on the island. Interesting things included a red-flowered Gesneriaceous vine (like Bignoniaceae) which I found on Fergussor and Normanby, and a fine big Marattia with tripinnate leaves. Saw oaks in the forest at about 200 meters.

Father Twomey of Nimoa, on a visit to Jinju, called at the resthouse to talk with us. Short, stocky man of open countenance, who started the mission at Nimoa in 1947.

Sunday Oct. 21: Heavy rain from the NE last night measured 64 points at the mission. A sultry day, it seemed to me, despite a good NE breeze off the sea.

Spent nearly all day preparing yesterday's plant collection. The rest house is big enough for Rus and I to work in. It already stinks of cuscus.

Rus and Lionel went jacking last night but were driven in early by the rain. One Rattus ruber in traps.

Wednesday
~~Tuesday~~ Oct. 22: Rain again before dawn. At 5:30 a great black cloud lay over the sea to the NE. Light rain through much of the morning. Thunder with this.

Botanized eastwards along the flat sandy island on which Jinju is situated, then across a mangrove flat on a bridge mainly of sawn baulks of timber to garden lands on Wabu Creek (this seems to be the big creek which heads near our mountain camp). From the gardens -bananas, taro, coconuts mainly) I went up the slopes into primary forest. Some fine tall trees, which have been cut into somewhat by the Osbornes and the Mission. Little in flower or fruit in the forest, but I collected a fine big canopy tree which seems to be a Turraea.

In conversation with the owner of the garden, I found that he had worked for Burns Philp at Madang for a year as engine boy. His brother, who lived with him and owned neighboring land planted to coconuts, had worked four years as a houseboy in a Madang hotel. Other boys of the area have worked in Rabaul, Lae and Port Moresby. This man has a good house for which he had paid the builder 26 pounds. Nearby was a small house in which the second of his babies had been born. Such a house is not used after the birth of the child. Was questioned as to what we did with our specimens. I described the Museum as something like a big school to which all people could come to see things from all over the world. In reply to my statement that in some parts we were thought to be practicing black magic, I was told that "some people do not know God."

Nothing in traps but five Macroglossus caught in a net and several bats shot by Lionel and Rus (Pteropus conspicillatus, Dobsonia, Nyctimene).

Tubuga and Sipoma were sent across to Abaleti for some onions from our stock there. Left at 7:15 and returned at six in the evening. A remarkably fast trip. The journey is supposed to take about five hours each way.

Ron Osborne here this evening on a trading trip. He bought a couple of bags of copra and some trochus shell, and sold a considerable quantity of manufactured goods. The excitement of our presence has decreased the regular rather high output of copra by this community. At least we have spent about 20 pounds here.

Started buying artifacts for the Museum. Have three kinds of shell money and a limestick so far. Native food is coming in well. We will try to lay in a stock to take to Woodlark, where population is only a few hundreds and garden produce is likely to be scarce.

Since about the middle of last week there have been big doings at the Mission. Monsigneur Doyle, head of this mission, has been here for confirmations. About 120 people have been put through. (Since the mission started something over 600 have been baptized on the island; about half the population). The monsigneur, with Fathers Twomey and Earle, left about 6 this morning for Nimoa in the "St. Patrick." Tues.

Thurs. ~~Wed.~~ October 23: Rain much of the time from about 8:30 to 10 this am, spoiling my field work. Weather from the NE, over the sea.

Went west through the mission and over the coastal slopes. Very tall, gloomy forest in which there were a few fallen flowers on the ground, and parrots feeding out of sight overhead, but I could collect very little through inability to see.

Another Pteropus and a cuscus shot by Rus and Lionel; three Macroglossus in the net; two R. ruber trapped by a hospital boy at the mission. Nothing in our traps. I find that only the regular museum bait is being used.

Had Brother Crantwell to dinner. Plain bushman from Dalby, Queensland. Worked on farms, then for an undertaker. Has two brothers in the Church as lay breathren and another brother about to be ordained as a priest.

Wed. October 24: Very heavy rain from daylight (5 oclock) to after six in the morning; 162 points at the mission. More rain during the morning interrupted my field work. Afternoon fine and hot.

Went up the mountain trail as far as a big new garden at approximately 80 m. Collected 18 numbers in second growths and primary forest (have 48 for three days at the camp). A curious pinnate substage tree with red cauliflorous flowers. Freak condition of thousands of short pendent (c. 1 m) adventitious leafy shoots from a big canopy tree whose branches had been entirely stripped off by falling trees when the garden was cleared. These shoots in flower.

The hospital boy caught two more ruber in his two traps. A Pteropus conspicillatus shot by ~~Lionel~~ Rus. Bait changed to sweet potato and coconut today.

We have daily contact with the mission. Rus drops in there often. Today Lionel fixed their broken-down lighting plant (small Lister diesel with injector trouble). "The mission small launch "Bambino" was sent around to Abaleti with an injector for cleaning. Brought back for us a tin of flour.

Thursday Oct. 25: A rainless 24 hours. Today mostly with little cloud, and bright and hot. The evenings are warmere here I notice, than at Abaleti. And every morning close to dawn I wake and have to get half out from under my blanket. SandFlies are here, but in numbers too small to be troublesome. A few usually appear, and bite, toward sundown.

Went up Wabu Creek about a mile, to where it narrowed and the hills began to close in. Tall forest broken by a new small garden clearing or two, and second growths (Piptadenia novoguineensis plentiflu) where gardens had been. Sago here and there on wet patches of ground. Taro the principal crop planted in the gardens. A fair number of bananas, some cassava, and odd plants of corn, hibiscus, etc. Have not seen any yams in this area. This seems to be a general season for burning off and planting the gardens. Trees usually clear felled. Sometimes the bigger trees are left standing, killed by fire, in the old Rossel fashion.

Again nothing in departmental traps. The hospital boy brought in three more ruber from his two traps. Rus has not as yet inquired as to what the boy uses for bait. Three bats shot last night by Lionel: Pteropus conspicillatus, Nyctimene, and Macroglossus.

Brother Crantwell came after dinner to play native songs for our Gesiages on the accordion and mouth organ. Only one of the boys came out to listen. Something went wrong. It might be the local feeling of Protestants versus Catholics and suspicion of the brother's motives. Crantwell once got as far as an audition in a national harmonica contest in Australia.

Friday Oct. 26: Weather returned to strong SE. Rain threatened much of day. A thunderstorm in the evening. Day cooler than lately.

Botanized up the mountain road again to about 80-100 m. Got only 11 numbers but there were mainly good trees of the primary forest. An Erythroxylon, the first on the trip, among them.

The usual report on traps, two rats from the hospital traps. Kim, out shooting last night, got a cuscus and five Macroglossus. Previous to this, only one Macro-

glossus was shot - by Lionel. They are difficult on the wing. Kim waited for them to settle in a fruiting tree.

To dinner with Brother Crantwell this evening. We provided the blue pigeons for the meal. The mission has an excellent cook, but our Kim knows more about doing up pigeons. A game of scrabble filled in the evening. The game seems popular in this country.

Sat. Oct. 27: A considerable amount of rain in early morning, before dawn. More or less showery day. Weather from about east.

Botanized, for very little, the hills on the ~~xxx~~ north side of the valley of Wabu Creek. Have seldom seen so little flowering and fruiting in a forest. This is an off season for plants. The flora is poorer than that of any of the other islands we have worked on.

A mail in this afternoon by the mission boat "Morning Star" brought a new Leica camera from the National Geographic. The focusing gear failed long ago in the camera I brought out with me. Tomorrow will be out last day in Jinju and I will probably spend it largely in trying to get close-up pictures.

The same results, or lack of results, from expedition trap lines. The hospital boy brought in only one ruber this morning (he has been using coconut as bait). Yesterday, however, the Methodist teacher, not to be outdone, asked for two traps to set in his house in the village. This morning he brought in 13 ruber and two lus! He did not say how long he sat up to make the catch.

Lionel this morning, with a local guide, investigated a bat cave we have long known about. Really a crack among jumbled rocks, about 20 minutes up Wabu Creek. Crack narrow and hard to get into. Caught 5 small Hipposideros of the species we already have for the island.

Called on Father Earl in the evening (he returned from Nimoa on the Morning Star). One thing discussed was the early history of the Catholic Mission in these parts. Nothing seems to be known about the end of the Marist mission which went to Woodlark about 1840-50. Recently, however, a priest visited the reputed site of the mission and, digging, unearthed a chalice which is now in Sydney. The inference was that the priest who probably buried it must have been in a bad way. There is a legend on Rossel that, long ago, a white man came to the island who made the sign of the cross. He had only a shovel, with which he leveled ground for a house. Finally he was eaten.

Sunday Oct. 28: Some small showers, and much good bright sunshine. Several severe black squalls from the east.

Stayed in camp to attend to collections and correspondence and sent my boys into the field, mainly to collect the gum tree (Vatica) of Rossel. This is the same species that occurs on Sudest. It is very abundant on river flats and the lower ridges at Abaleti, on the south side of the island. Here it is anything but common, and, as everywhere else where I have seen it, the leaves, especially of the older trees, are very badly eaten by insects.

Botanical collections for this camp number only 93, a poor total for seven days of field work. Herbarium sheets number 620. As previously noted, this is an off season for flowering and fruiting, and the flora of the island is poor. It is especially poor in ferns and orchids, groups which generally are well represented

in the Papuan region.

Another big batch of rats (seven) from the Methodist teacher. Nothing in other traps. Two cuscus and several bats shot last night by Kim and Tinker. Rus jacked for nothing, in early evening. The boys did not start out until after 8:30.

Following an announcement in church this morning by Father Earle, who has done us more than one good turn, a regular flood of artifacts came in for sale during the day. I bought shell money, pearlshell scrapers and spoons, hair combs, a nosebone, and three types of baskets. Perhaps the Methodists will be in in the morning. Theirs is a strict nonconformist Sunday. Thought today that I would be able to get pictures of village activities, but there weren't any. There was even any cooking of food. The hamlet of Jinju appears to be straight Methodist.

Sunday Dec. 2: Left Tamarai on "Kadelima" at 9:30 AM and arrived DAWA DAWA about one o'clock. Stopped first visit to Shiline Bay. Had on board, going to pick up school children who had come in by Tarsair for the Christmas holidays, Ray Taylor, his half caste wife (Lucy English), & young Gordon English.

Letter Sheehy's advance letter notwithstanding, there was no red carpet out for me at Dawa Dawa. The big house turned out to be the property of the village councillor, named ADELEI. Place about 30 x 20 ft. the frame largely of Douglas fir and Australian hardwood, the roof of galvanized iron. Adelei refused to vacate his house, saying he had no other. But the house has two rooms at each end, separated by a wide breezeway, & I have rented two-thirds of it for 30/- a week. A high price, but worth it to me. Only alternative was to go cruising around the bay in search of another locality.

Situated on a narrow gravel spit on the east side of the mouth of the Dawa Dawa River (ca. 200-yard stream), the village is a mere hamlet of five houses. The gray gravel has been taken to Tamarai in quantity for making concrete. On west side of river is small coconut plantation owned by Reeling.

Was met by a young Local Govt. Councillor (MAHURU MARK.), who had been sent by Mr. Fd. himself warned up in advance. Imposing middle-aged man in singlet, shorts & sandshoes, affecting a close trapped moustache & a carved ebony walking stick.

Monday Dec. 3 SE weather with a rough sea [illegible] heavy rain in middle of the afternoon. There is drifting pumice in the bay & little rain has fallen in some weeks.

[illegible] apparently [illegible] shipping in [illegible] & copra launch came [illegible] [illegible] miles up the river [illegible] by Rawlings (Dinghy [illegible] [illegible] [illegible] [illegible]). Botanical [illegible] disappointing [illegible] was spoiled by the rain, though the [illegible] was [illegible] from the [illegible] for the [illegible] [illegible] the most part the [illegible] of these [illegible] practically all [illegible] [illegible] is occupied [illegible] plantation [illegible]. [illegible] small [illegible] are the staples here. Some small [illegible] plants when [illegible] much higher up the [illegible] in the gardens. [illegible] of [illegible] [illegible] also informed me that the logs for [illegible] former were cut high up the river (13 miles), [illegible] was 3 or 6 miles).

[illegible] of small rafts of logs, and [illegible] [illegible] of the [illegible] [illegible] the Catholic Mission [illegible] by the [illegible] at SEBEA [illegible] to have been there a long time. I am paying a penalty for not checking to the last detail a job done by natives. My typewriter was left behind when ~~[illegible]~~ the camp was transferred from the ~~[illegible]~~ KEDELUMA yesterday.

Tuesday Dec 4 Strong SE wind & pouring rain [illegible] small surf on the steep weather side of the gravel spit. We saw a [illegible] of rain. Botanized east a mile or two along the coast. Turned up the mountains up a small running creek. Practically a [illegible] for plants.

[illegible] morning. I expected to find at least a good amount of second growth species. Was in primary forest up the stream. Trees were heavily stocked tracks of water falls were practically bare of the ferns which I expected to find. Collected not a single plant in the primary forest. Very steep rocky slopes.

Saw where some rough logs ~~[illegible]~~ had been cut on steep slopes & brought down to the coast. Some natives now working at this in the area I visited this morning.

Wed. Dec. 5 Weather more S to SW. Heavy showers from 3 to 4 p.m.

From 7 to 8.30 spent an excursion up the river by dingy. Went as far as the dingy could be taken, a distance of 5-6 miles by the windings of the river, pulling the boat up rapids & rowing on deep reaches. All this for a microscopical total of nine plant numbers. Passed one island at the fourth bend. Just above my farthest point was a big gravelly island with a patch of small trees growing on it. Passed the island a big sluggish tributary came in on the left. Saw five houses, all on the right bank, & four of them below the fourth bend. One house visible in the front of the left bank just above my far point. All along the river most of the slopes & all the little flats had been cultivated. Very little primary forest except on the very steep slopes & the crest of the higher hills. All my far point I was behind the coastal range, which rises to 3000 feet. The one hill visible upstream was only 400-500 ft. high.

The river is tidal as far as the fourth bend, a distance of about 2 miles, but the water is quite fresh far below that point. At the mouth it is only half salty.

For some distance above the fourth bend, millions of small speckled fish, about 1 in. long, were swimming upstream. I take it to be the annual migration of whitebait. They were too fast for me when I tried to catch some in a butterfly net. But the boys caught a pound in 10 minutes with bamboo. They found on the river banks.

Up-river was as poor for insects as for plants. Saw very few butterflies, only two species of dragonflies & two of damselflies. Caught only one dragonfly (a fine big Gomphid) & one damselfly.

The village is infested by mangy undersized, weak mongrel dogs. They bark a great at all hours of day and night. Last night the cook, having greased my two pairs of boots, left them on the detached kitchen. It was a thoughtless thing to do. This morning I was shown the result. Two ends of the leather laces taken off. Tops of the fur within packing insects chewed away. But luckily the damage was not worse.

Nearing far point up the river today on the right bank, some Dawa Dawa nuts were claiming forest for the planting of 50-100 experimental coffee trees. Tomatilla ADELAI was there. They call coffee "COF."

Thursday Dec. 6: Weather continues about southwest. Rainless 24 hours but for a slight shower about 1 pm.

My missing typewriter and some mail were brought from Samarai today by Maluru Mark of Dwabadili.

A letter from Tua, dated yesterday, says they ~~m~~ have been delayed by the non-appearance of Lumley's boat and will be sailing on the "Chinampa" at twelve tonight. In four days on the mainland they had the remarkably good haul of 13 species, 39 individuals (Dactylonax, Pseudocheirus, Nyctimene albiventer, Rousettus, a very big Pteropus, Uromys, Pogonomys, Syconycteris, Pipistrellus, Phalanger orientalis, Melomys, Petaurus, large Dobsonia. Trapping must have been very poor, if traps were set (only the Melomys is likely to have been trapped).

I have spent the day in camp. Have decided to vacate this camp at the first opportunity, and today I expected a boat to go by en route to the head of the bay to pick up Carsair passengers, etc, due early tomorrow. Perhaps the flight has been delayed a day. This morning I called my boys into council in the hope that from one of them I could get information on a ~~[illegible]~~ locality with "good bush" suitable for botanizing. No information was forthcoming. I lean towards the south (Bucu) coast, not far from Samarai. A large area there, between Fyfe Bay and Samarai (and Milne Bay, for that matter) has not been touched for plants except for a few numbers collected in the 1870s by the missionary James Chalmers.

Friday Dec. 7: Sultry day of high thin overcast. No wind at all. Not a glimpse of the sun.

Was packed up before nine and waited all day for a boat to turn up, going in the direction of Samarai. None came. Did not hear the sound of the plane at the head of the Bay, so conclude that it did not arrive from Port Moresby. The tender

Thursday Jan. 3: My last day in Samarai developed into a last-hour rush. Was notified at 11:15 that the "Hum" would leave at noon, instead of one o'clock. Had therefore to say hurried good byes.

We left Samarai at 12:03 and arrived at GABAGABUNA, Milne Bay about 4 o'clock. Good smooth passage; hot, still day.

The battered hulk of a schooner named Brodie was at the wharf and gave us a lift to the landing strip of Hans Jansen, about 2 miles inland. Johnston's native wife, Olgnes, with us on her way back to Port Moresby, where they have a home.

Hans a big gray clean-shaven old Dane of 70 years. Married to a native woman (a kindly little old woman) & has two sons. Has been in Papua over 40 years & in Milne Bay over 30. Was 17 years an overseer on Lever Bros Plantation, the last 9 years as head overseer. Refused evacuation in World War II & ended in charge of the Milne Bay refugees at MODEWA. A good host. Found old man with an interest in astronomy.

Friday Jan. 4: Samarai has its passengers entirely at its mercy, & uses them accordingly. ~~Two~~ Today, we were told in Samarai there would by two planes. One would go on to the Trobriands. The second, a special carrying Dentist Ken Baldwin to Milne Bay, would arrive first, at 8 AM., & take us to Port Moresby. The first plane came down after 9:30 & went on to the Trobriands; the second about 1:40, ten minutes after the other came came back from the Trobriands & had our baggage on board. We were transferred to the second plane, left at 1:55 & set down at Jackson Airport, Port Moresby, at 3:50. A good flight at 3000-3500 feet.

The P. Moresby area has had very good early rains & in consequence the savanna hills, which are dry & brown through most of the year, are brightly green. Have never seen this dry area so bright & lush.

Big work is in progress on a third very long runway, at the airport. The big reservoir is also nearing completion.

Am staying at the Papua Hotel, £2-12-0 a day inclusive tariff for a single room. Have an air booking by Qantas for Rabaul on Tuesday.

Talked with a Californian oil driller who arrived today to work for the Moorhead River. He is in the employ of an American contracting company which drills wells for APC (Australian & Australasian Petroleum Company). Says American drillers put down a hole in 6 months that Australians & English would take 18 months to complete. He is on a two year contract. Has also drilled in Alaska.

Sat. Jan. 3: Very hot, no rain. Mosquitoes were rather troublesome in the hotel dining room last night. After a respite of some years, the heavy black squalls called GUBA are said to be a feature of this wet season.

Saturday is a full holiday for Government offices in Port Moresby (and Rabaul) so could not get any business done today. Bought for £3-2-6 (ca. $11) a pair of ~~shoes~~ shoes which would have cost $20 in New York, or more. Talked on W. T. (Arthur) Davis, manager Bank of New South Wales, who took me to the Papuan Club. Saw there Frame & Bernie Ryan of B.P.S., Brisk of Steamships Trading Co., Blair & Brown, T. H. James, etc. All spoke of the Tarlan expedition, especially of the Tuba & her crew. An A.P.C. man said his company is spending £442 million on oil prospecting this financial year.

Spoke with Ken Slater, Animal Ecologist (first a herpetologist) who has been in the west lately. Says

he saw on the BIROUBI River, a western tributary of the Fly, which he was pretty sure was red wallaroos. Big animals & very red. Rickey Savanna forest country. He going back to collect a series. Offers the museum a male & female if he can get enough material. Helen has the Taipan from an far east in Papua as Rigo. The Papuan snake is a new representative with red stripe down the back, recently described by Helen.

Tues. Jan. 6. Breezy day from SW. Not as hot. Heavy thunderstorms inland. No rain here.

Met Dr. Dorothy Thaw (Plant Pathologist) to lunch at the hotel. Later visited the Public Library. Then sat on the beach with Smith of Cadbury-Fry & his wife & small son. Smith came from the Gold Coast some 8 months ago. Plant visited NG to look for a suitable area of land on which to establish a cocoa plantation for his company. This project was dropped for reasons I do not know. Smith now going to Rabaul, where he will be stationed to look after Cadbury-Fry interests. New Guinea cocoa is of good quality but has a "sharp" flavor. It is being used in Australia to blend with Accra cocoa. At TERRIMAI Experiment Station visitors are given a piece of chocolate made from Accra & one from New Guinea beans and asked which they prefer. Most people so far have chosen the local flavor. The principal market in Australia is for milk chocolate.

Wednesday Jan. 7. Spent in bed convalescent, rainy day with light rain about 3 PM into evening.

A big day of official visits. ~~Tuesday~~ Tuesday with my air booking with Qantas. They generously revoked the ticket from Port Moresby to Lae & back. Had to pay £15 odd on the transaction.

At Konedobu (Govt. headquarters) first called on Jones & left to see Sir Leslie McIlwain, who was out.

Then visited Dorothy Shaw at Dept. of Agriculture and after that Director Dwyer, who was about to leave his office for a Land Board meeting. Found from him, however, that a permit had been issued for the export of our zoological collection. Saw a copy of the telegram (sent to me, care to Collector of Customs, Jamaica) & discovered that as a condition of export we were required to give the types to the BNG Administration.

Went then to Dept. of Native Affairs, where I saw first Julian, Govt. Anthropologist, then Director Roberts. The department had cleared our "enquiries" for export. Julian told me over morning tea that during the past year about 12 anthropologists had visited PNG on special projects; his own work is practically confined to Wau area. Roberts very cordial; spoke mainly of the expansion of government posts in the territories. I think there are over 50 now.

Finished the morning with a talk with Claude Champion, who is now acting head of Native Affairs, who drove me back to the hotel for lunch.

After lunch, packed the paraphernalia for which I have been awaiting an export permit — which is no longer necessary for such things. Picked up my revised air ticket. Then to Sean Champion's (Commissioner of Taxes, or something) office in Sydney. There "back to Honolulu", where I first saw Mr Allan. Very cordial & talkative on zoology matters, especially the propagation of Araucaria cunninghamii & Ab. Klinkii in the Solomon timber exploitation area. They know, from early work in Queensland, how to regenerate cunninghamii. Klinkii is still a problem. The former is the better timber, the latter, a new commercial timber, has been most publicised on the market.

After Mr Allan, visited Dwyer. Very talkative. Finally we get around to discussing the export permit his department had issued. The demand for types was a mistake, of course. I do not trust

Bergen, a Hendersan, his A.D.C., who is now away on leave.

Had an interview with Administrator L.M. Leland at 8:30. He seemed in a hurry & did not have much to say. Then called on New Guinean, who is now Acting Dist. Administrator. Ended the day with a visit to the club with Claude Champion.

Off my table in the hotel today is a Dutchman named Roos, a building contractor at Hollandia, on his way back from Australia. Says there are now about 200 white people at Hollandia. Until recently the only buildings were U.S. wartime barracks & quonsets. Now some 300 new places are being put up. The Dutch feel insecure in west New Guinea. They don't trust the Dutch to make an ownership decision favorable to them. Many Europeans have been killed in New Guinea since the war. The settlement scheme a failure. Too many of the beneficiaries "belong to good families" & will not do hard work. No business being done with Indonesia, except perhaps in air services, which the Indonesians plead with the Dutch to carry on. Most building materials come from Singapore. Cheaper than Australian. Real New Guinea supply of timber is inexhaustible.

From Jean Champion I learn that the PNG government still maintains a box of 5 a & hotel posts along the Dutch border.

During the morning I visited the Administration museum with Jakins, Judge Shipnell, & Miss Jones (Hon. Secretary). A committee was formed & the museum started last year. Collection of about 200 artifacts housed in the old governor's house & office building. Simple but effective arrangement. Some very good things, mainly (the most conspicuous) from the Sepik, Markham, & Rabaul coast.

Tuesday Jan. 8: Left Port Moresby at 7:50 AM by Qantas DC4 "New Guinea Trader" & arrived Lae 9:10. Smooth flight but could see little of the country, & none of the Main Range, for cloud.

Met by John Womersley, who took me to the

Rabel Cecil (Mrs. Pearson), an old woman who knew [illegible] Rogers, etc). Later in the morning visited the Forest Herbarium, & John showed me through the Botanic Gardens. Did not see much of the Herbarium. There is room enough for the 15,000 sheets (in Merrill boxes), but the walls, under wide eaves, come only half way from floor to roof, & rain can blow in. The good ventilation probably saves the place. Two women & 2 natives work in the Herbarium. Botanic Gardens are on a forest reserve 60 (64?) acres in area (another, adjoining, 40 acres are available under the town planning scheme). High old river terrace & grounds about 200×80 ft. Town, but well drained, are separated. There is a permanent small stream, a little sago swamp, & a strip of original hill old rain forest under the bank of the terrace. The grass is kept mowed & some planting has been done. A big shed house contains a good new collection of native (& a few hybrid) orchids, begonias, ferns, etc. There are great possibilities in the garden. A new, reinforced concrete herbarium & office building should be put up this year.

In afternoon John drove me some miles along the Rewa road to see the country. Following us in his own utility was R. N. (Ron) Paine, an entomologist, here for 18 months for the Fijian Government on investigation of the banana scale moth. He found larvae of one of his moths on Heliconia. Returning to town, we called in at the cocoa plantation of Henty, formerly of the Dept. of Forests, who has 40 acres under cocoa & proposes to plant 120 acres. The cocoa is doing well. A new crop in which chocolate manufacturers in Australia are showing great interest. Mrs Petersons have a plantation not far from Henty's. Henty is the last of the old pioneer family of that name in Victoria. The last of the family (a woman) is married in the cocoa.

In evening, John & Mary Nomurley had Paine & I to dinner in a Chinese restaurant (not too good). & Paine later showed some good Kodachrome slides he has made in New Guinea.

Wed. Jan 5: Day spent on a visit to the Highlands with John Wormersley on the DC 3 which the government charters to do a round of the outstations every Wednesday. Left Tar at 7:50 & landed at Taraka some 40-50 minutes later. Mr Tibbles of Stanlings met me at the airport. Tarraka is the center of an area in which, scattered over many miles & served by several airdromes, coffee is being planted by Europeans. Country is almost entirely deforested except for a few trees along riverbanks & in ravines. Many native population living in beehive houses. Gathered that the older plantations are just about coming into full bearing & this is a critical time for the young industry (JA visiting expert reported the soil unsuitable).

From Tarraka we flew to MINJ, passing over the Chimbu valley & Govt. Station on the way. Minj is in the great Wagi Valley at ca. 5500 ft. Natives live in small hamlets & both men & women wear a sort of sporran of netted string. Some cocoa planting. (Probably more room for European settlement in the Wagi than in the Tarraka area). Got the loan of a hand plow from the ADO at Minj & drove across the valley to MOUNDUGL, a distance of about 15 miles by fairly good dry-weather road. At Mondugl, the govt & Sir Edward Masham have a joint project in sheep raising. Have ca. 1000 head of Romney Marsh breed in charge of Frank Rentle-Smith of the Dept. of Agriculture. Various flukes have been troublesome. Intense rotation of grazing, in small paddocks, is now practiced to control the flukes. The original object was to introduce sheep into this grassy valley as an extension scheme for the natives, but the natives have shown no interest.

A wildlife section of Mondugl is in charge of Thomas Mayer, well known collector of birds & mammals. This is a private project of Masham. Mayer has been in charge for 3 years. Is thoroughly wrapped up in his charges. The property has been well developed with big cages, ponds, & plantings for shelter, shade & ornament. Many spp. of birds of paradise are doing well in captivity. There are Salvadori's ducks, 3 spp. of Dendrolagus, Goura pigeons, etc.

Passed one some very fine [illegible] timber country in the Chimbu area. The Waghi Valley appears to be in a stage of redeposition, which leaves long, narrow flat-topped ridges on which the natives have their gardens & oblong houses. Mt Sangra. The few natives seen at the airstrip were workers who were naked & in some cases flannel shirts. All shirts then was a good sprinkling in native dress, much decorated about the head & wearing crescent necklets of pearlshell, & bills being well jangling pieces of pearlshell. A well built, vigorous people in the Waghi & very friendly. They have never given any serious trouble. A big population in the mountains between Mt Hagen & Chimbu. Seem to have moved there recently, for the forest has been only partly cleared. Tall trees grow in the gardens, as on the upper slopes of the Bulolo Valley. Saw no planted plantations in the valleys.

The sun was hot on the Highlands, but in the shade it was cool. Country has a temperate, & very fertile appearance. Mt Wadagl extreme maximum temperature is about 85°, minimum 45°.

Thursday Jan. 16: To Bulolo with. John & his small son. Good than in an official Ford Rover with a good native driver. There is a dry spell in the inland wet season (this is the dry season at Lae) & the road was in good condition. Winding gravel road. We did the 59 miles in 1½ minutes under 3 hours, which was considered good going. Road rises to about 3500 ft. when it enters the Watut (Snake River?) basin. Then largely grassy. Thick Zebu cattle grown pounding & exploited in the upper part of the valley & apparently is prospering. Lower part of valley very unstable. Much slumping & slipping on the slopes. Very steep slopes; remarkable brown along river.

Stayed at Sam Lodge Bulolo. Really a superior motel with 9 2-room cottages, each room with bath, & a big building with dining room, lounge, etc. Lounge beautifully panelled in polywood from the local mills and cedar, N.G. walnut (Dracontomelum), Elaeocarpus, Papuacedrus etc. A good trade exhibit in timber.

After lunch we visited the polymill (Tredden, manager). Big, very modern new plant not as yet working to full capacity. Saw the process, from the log yard to peelers, glues, drying, trimming, patching & packaging. Was most interested by the gantry handling

of the logs, in the peeling of the bark & the peeling of the wood of the beautifully straight logs. Many operations are controlled by electric eyes & other electronic devices. There is no packaging of plywood for the local market. For the Australian market it is done up, about 10" x 12" sheets together in paper. For export to San Francisco, it is packed in plywood crates. 1911 Araucaria Klinkii being manufactured at present time.

After the mill we drove up the slope to the logging area. Stopped at a log landdeck & saw no actual handling of logs. The lower slopes of the mountains carry extensive stands of D. Klinkii. Uneven in size, but few young trees small enough to be called saplings. The understory of mixed rain forest species. Average height of Klinkii is about 230 ft., average girth about 10 ft. Govt. collects a royalty of 2/- per 100 super feet (in Queensland it is 23/- for D. cunninghamii) & undertakes reforestation. Exploitation is on a sustained yield basis on a rotation of 70 years. Fifty years considered enough to produce good mill logs. Practically all planting thus far has been cunninghamii which germinates & establishes well. Klinkii gives trouble in establishment, though it germinates fairly well & can be satisfactorily transferred to tubes.

Visited the Forest Station & talked with Regional Forester David Dun, who did not impress me as being really 1st. caliber. Said he had about 1¼ million young trees ready to go out in March. Supposed to plant 1000 acres this operational year. Dun says that Klinkii occurs on schist & sedimentary rocks, never, so far as he knows, on granite. The soil of the Klinkii forest is pale gray, deep, & contains much rotten rock. Growth is not good on the sandstones, which are too dry for part of the year. Best on schists, which produce a clayey soil.

Tot. personnel in forest & mill are Australians, trained in Canada. About 500 men employed. Only two dredges, of original eight, now in operation & they will close down in about another year. The timber operations will employ as many men as the gold did.

Friday Jan. 11: Returned to Tow in the morning. Johnson had to meet G.A.R. Stanley, retired geologist of A.P.C., who will be present PNG Scientific

Society at the ANZAS conference to be held soon in New Zealand.

I have a booking to Cairns by Qantas plane leaving at 7 AM tomorrow. Report of news of a cyclone over the Coral Sea, which has delayed some of today's air traffic.

The Mornsbys gave a cocktail party for Paine, Stanley, & myself. Present were Niall (DC), Haviland (DC), the Stanly, Paine & I stayed for dinner & afterwards saw Kodachromes which John made this year on Mt. Wilhelm in a collection from various sources which Stanley will take to Christchurch next week.

John spent 6 days at a lake at c. 11,500 ft. on Mt. Wilhelm. Hilliard established the camp & built sod huts there. Tended on Kegelmyl airstrip at over 8000 ft. About 4 hours walk to the lake camp. Mr. Victor Brown, who accompanied John but did not quite reach the summit, is sure that a Otter plane could land on the lake with 1500-1600 lb. of loading. Could lift about same weight in take off (about half load). Paine stepped lake 500 ft. above the camp lake. At pond at over 13000 ft. a rough woody growth for firewood there.

Stanley an unconventional type, rotund of figure, & with a short clipped grey beard. Raised money for his N.Z. conference trip largely by collecting & selling empty bottles. Brought with him from Port Moresby a native boy about 4 years old. Is staying with a Malay named Tonsoy, who, with his wife, was invited in by the Mornsbys after cocktails.

Tal. Jan. 12. Left Cairns by Qantas at 7:40, flew the 9:45. Dorothy Shaw & Father Bruthwell at the airport to meet me. Bruthwell a big, youngish man very interested in botany. Showed me a selection of his water-colors of mostly orchids. Vivid colors & a lifelike quality. He collected about 300 numbers for Kew. Now has to collect & duplicate for Kew, & doesn't like it very much.

Left Mornsby 9:45 & arrived Cairns 12:30. Good weather but for low cloud on the Queensland coast & rain in Cairns. The cyclone, which passed out to sea somewhere down the coast, is influencing the weather at Cairns.

Afternoon at the Hotel Tenkiri recommended by Miss Hall. Not as good as Rider Haggard to be.

To Innanga Sugar Experiment Station in evening as guest of Tilbert & Rose Baker. Birthday dinner for Tit & Dan Tweed of Cairns, who were there with his wife, son Bob & a medical friend of Bob. Bob is a medical student.

Baker informs me that the giant toad Bufo marinus, which has infested coastal north Queensland for years, is now definitely on the decrease in regards numbers.

Sunday Jan 13. Another very wet day. Floods are widespread in NE Queensland.

George Brooks, who was out insect collecting yesterday, picked me up at the hotel about 10 AM & took me to his respectable home at Edge Hill. (Jessie & their two small sons were there). Spent the morning looking at George's fine collection of beetles. Mostly local species, but a few number got by exchange from other parts of Australia & countries abroad. The species are in separate cases. Critical materials have been worked out by specialists. The emphasis in George's collecting has been on groups in which specialists could give him identifications. Has collected several new species, which have been named by other workers. Returned to the hotel at 4 PM.

Monday Jan 14. Some showers but weather much improved.

Went first to TAA to arrange an air booking for Brisbane on Wednesday. TAA handle Qantas affairs in Cairns. But it does not belong to the international organization & my return ticket by Qantas to Brisbane was only good as a credit against the TAA fare of £20. Had to pay an additional £12/12/-. A very curious state of affairs for a big company, owned by the Australian Government as is Qantas.

Called on Trevor Tilyard, Agricultural, Dept. of Agriculture & Stock. Cordial, but did not seem overjoyed at seeing me. Later got in touch with Tom (T.F.) Webb, manager, Taylor & Hanson Electrical Co. With George Philip & Frank Moody, we had some beers before lunch. Went out to Philip's place in afternoon. To the Webbs (Tom & Mary) for a very good dinner. Home-grown Arabian coffee used. Home-grown pepper on the table.

I understand that there has been wrangling & political wire pulling in the formerly good N.Q. Naturalists Club, & that the club is not longer very active. Mr Reid is now president. Formerly, the club's membership

has passed into the hands of Bob Hunter, who calls himself "Tropical Tours." It is part of a display which tourists pay to see.

Hugh Tyler, formerly of Montock, called to see me. He has a carnival business in Cairns & is much interested in growing orchids. His brother Joe, now a qualified mining engineer, manages a uranium mine in West Australia. He has lately got out the world's biggest specimen of pitchblende, weighing over 2000 lb.

Tuesday Jan. 12. Fairly fine day & rather hot. Temperatures here are not nearly as oppressive as in Jamaica, but Moresby & Lae.

Was interviewed at the hotel by two young men from the Cairns radio station & made a recording on our work in New Guinea, its extension over the years, & its meaning.

Another example of nice appointment going wrong in the tropics: my Mon. Geographic photographic case. Glad to have it opened by a locksmith the morning. Could not unlock it when going through Customs on Saturday.

Had Alf Reed to lunch. He has been president of the Nat. Club for the past 8 years. No one else will have the job. I doubt if Alf contributes much brilliance to the club. The club still publishes its small journal & has over 100 members, mainly non-resident, who pay only 10/- a year.

Talked on Dr. G. Thacker, radiologist, founder of the Naturalists' Club & now 72 years old. He has slipped a lot in the past 8 years. Tays the club & its museum are ruined. George Brooks & Gordon Stephens being the leading workers.

Later visited the "Tropical Attractions" show of Bob Hunter in Harbour Board buildings on the water front. One long room contains Hunter's own amateurish collection of insects, etc. Another houses the North Queensland Museum collection, mainly ethnological. Few number of mammals, a few from the AMNH, mostly local specimens collected by Gordon Stephens & badly prepared. Elgin in charge keeps the rooms & cases clean, but the inside of many of Hunter's poorly labelled cases are in a bad mess with dust. Admission charge 2/-. Only other tourists there during my visit.

Wed. Jan. 16: Left Cairns 8:10 AM on TAA Tourist "William Dampier" landed Townsville 9:15, left there 9:55. After crossing heavy land (the plane was not) obliged us to make an unscheduled landing at Rockhampton for fuel (11:55–12:25). Arrived New Farm Airport, Brisbane, at 2:05 PM. A good smooth flight but visibility poor. Stream twisted from Cairns to near Brisbane.

Staying with sister Edna Henderson at the patent of Hawthorne.

Thursday Jan. 17: Most of day spent in the city. Have made a reservation for flight to Sydney the night of Jan. 27, and on to San Francisco on Jan. 30. Applied for income tax clearance.

Visited office of Government Botanist & then talked (partly over a sandwich lunch in the tea room) with Telesphore Toursit (sic) and Stanley Blake. The appropriation has been made for building this year a brick & reinforced concrete annex to house the library & type specimens. A fire proof wall will separate this from the old wooden building. The herbarium is being gradually reorganized, families & genera in systematic order. Then alphabetical arrangement in large genera. Bentham & Hooker system being followed to about 75,000 specimens mounted last year. Total number of herbarium sheets nearly 500,000. Library of about 7000 books. Some rare books, including the only copy of Flora Brasiliensis in Australia. Now five young graduates in herbarium & library in addition to Toursit, Blake, & Lindsay Smith. The effort being made to fill gaps in periodicals, not published during the war.

Friday Jan. 18: Picked up my income tax clearance & had my plane reservation confirmed.

Visited the Queensland Museum & talked with Director Frazer Shark (mostly) & Gore Vernon. Did not see any exhibits. Museum recently began showing Walt Disney pictures, which can be hired on special

lectures for free educational purposes. Show put on in a picture-hall atmosphere in a basement room which seats 150 people. Two women in staff (Mack, Wood (young geologist), Vernon & another preparator). Mack as staff confident as ever, & as teacher. Very critical of George Paterson's big work on Malagasian - Australian rats, published ca. 1950. Says that a new subspecies described from Cape York does not even belong in the species to which it was attributed. Mack, for comparison, has been borrowing Thomas types from the British Museum.

Learned from Wood that Dan Slater now has a doctorate, based on his published work.

Trip to Warwick, Toowoomba & Dalby

1st. Left Brisbane by Greyhound bus late in afternoon & arrived Warwick in about an hour. Stayed overnight with brother Eric in suburb of Newtown.

1st Went on to Toowoomba by Greyhound; about 1½ hours. Visited the Andrews until evening when I left for Dalby by rail motor, arriving at 8:50 PM. Queensland rail motors are noisy, but would not be bad to travel that distance if they did not make so many stops. Dalby is 50 miles from Toowoomba, 150 from Brisbane. Stayed with brother Allan.

2nd Drove with Allan & his family to the very fertile Jimbour Plain, there was floodwater across the Condamine River to the property of cousin Percy Littleton. Country in fine shape after a season of ample rains. Large scale farming of wheat, grain sorghum (milo), canary seed, sunflower seed, etc. Also dairying & sheep raising, principally for the fat lamb trade. Great prosperity. The man on the land has done well since World War II.

2nd Returned to Toowoomba by rail motor to stay with the Andrews. Town prosperous & growing fast. Population now ca. 65,000. Second largest town in Queensland.

2nd Returned to Brisbane by Greyhound.

Jan. 23 Travelled to Palmwood by train to visit sister Doris. Tedious journey of three hours. My first class carriage in poor state of repair. The main toilet door would not open. The Queensland Railways are in a run-down condition.

In afternoon drove about 20 miles north along the Bruce Highway through mostly closely settled farming country: pineapple, bananas (chiefly Tedder finger), P. sugarcane, dairying. Went through the town of Nambour, Yandina, Eumundi & Cooroy. Highway good for the most part, but in poor repair in some parts, & in some sections too narrow.

Thursday Jan. 24 Back to Brisbane by car (79 miles by road). Did some shopping in town & in evening had dinner with the Walkers at Wood.

Fri. Jan. 25 Visited the Queensland Museum & talked with Tomm & Brown. Blake doing Telina for Brown's Australiana; should be finished by June. He & Lindsay Smith are then to work on my 1948 Cape York collection. About October Smith, E.T.A.P.O. chemist Ian Webb, & CSIRO plant collector Jones (mainly drug research) are to examine an area about the head of the Gregory River where, in 1948, I observed from the air what appeared to be a large area of rain forest. Tomm hopes that the Museum Trustees will agree to publishing a complete enumeration of my Cape York plants. Very desirable from a plant-geographical point of view, as my collection is the only important, properly recorded collection ever made in the area.

Visited W. D. Francis & Mrs. T. T. Mill at Kangaroo Point. Then said good bye at the Queensland Museum. Mack has just finished a week's lecture course in natural history to an annual class of 30 school teachers.

Tried to buy knitted woolen goods for gifts. Back home, but shops are not opened until March.

Sat. Jan. 26 Visited the E. R. Humphreys at Camp Hill.

Sunday Jan. 27: Left Brisbane Eagle Farm Airport at 12 PM. by Qantas Convair flying 12:25 AM. Some rough air, though sky clear. Staying at Marwell Hotel (£3-10-0 per day).

Monday Jan. 28: Australia Day is a close holiday. Shops all closed. Could not buy a magazine to read.

Had much sleep last night. A couple of uncomfortable spells. Got before lunch gave me diarrhoea. Walked the streets in the morning. A unpleasant day. Clothes women wearing long black coats of some light weight material. Very few men or women in shorts. Different from Brisbane.

Visited the Australian Museum (Govt. of New South Wales) in afternoon. Old fashioned place crammed with faded & dusty animals, etc. Only a few habitat groups. Bird & mammal collections are being reorganized, according to a notice. Some halls closed off. Attendance fairly good. Lot of Wage Abnormalities, smelling of paint & liquor & sweat.

A telephone summons to appear at Qantas office next door. Found that some smart individual made a mistake when I reported in & finalized my booking for San Francisco the morning. I put me down for tomorrow's flight instead of Wednesday's. Was called in for confirmation of this booking. The error has been rectified.

Dropped in to the saloon bar of the hotel to see the TV show (introduced in Australia about last November). Its close an imitation of vaudeville, Hopalong U.S. Thoroughbred as they can achieve. I have heard reports that TV is not going well in Australia, sales of sets far under expectations. No wonder.

Tuesday Jan. 29: Tried again (at David Jones) to get cashmere sweater. Stores not yet open.

Then to the Botanic Gardens. Talked with Anderson (director), Mann (A/C), Allen Findlay (trees), Johnston etc. Anderson, a man who "has not aged well" according to Alan Nicholls, has done an admirable job with far less. Man in early middle age, slender man with small moustache, rather nervous manner but very & friendly to talk to, was A/C Botanic Gardens, Darwin, later on

an agricultural officer with the British mission for a New Guinea, growing vegetables at Sandra. The Showers [illegible] afternoon morning. The Tindal perhaps in 40's their time; seems competent. Johnston a quiet type with narrow head, gingery beard, bald cap, eyes up. Is perhaps an amateur botanist. Fancy among. Is doing a revision of Casuarina, in part for Flora Malesiana. Has split the genus into two genera, largely on the position of the stomata on the twigs, as far as I can make out.

The herbarium of ca. 600,000 sheets is overcrowded; all material in white cardboard boxes. Types of a lot of Banks & Solander specimens segregated from the rest of the collection & kept in the director's room.

Went to the Australian Museum after lunch to call on Troughton who was away. Then tried to see Whitley (fishes), who could not be found. Troughton at the ANZAAS conference in New Zealand; Joyce Vickery of the Botanic Gardens also at the conference.

Saw the Bureau for Industry. Exhibition of the Australian Atomic Energy Commission in Macquarie Street building on Circular Quay. Films & exhibits showed use of isotopes & equipment. Was fascinated by the capabilities of a "master-slave manipulator" with which a needle could be picked up & threaded. Good attendance of all ages, ranging from housewives to scientists, according to the receptionist.

Wed. Jan. 30: Left ~~Qantas~~ Mascot airport for San Francisco by Qantas at 12:30 PM. (Super Constellation 6). Only 10 passengers on the big ship. Flight at 19,000 ft. Sun behind us. Crossed Norfolk Island, Fiji at 6.50 (5:50 their time). Distance 1775 miles. Arrived at Nadi (Nandi) at sunset. Total time 5:57. Wind varied.

Left Nadi 10:35 PM their time. Arrived Honolulu 9:45 AM (11:45 their time). Crossed international date line during night. It is Jan. 30 in Honolulu. Customs & Immigration formalities here, very perfunctory. Room & lunch at Edgewater. Rest 10 to 1 provided by Qantas. Visited Bernell at the Bishop Museum. Was introduced to his uncle, Prof. Lindsay, retired astronomer, who has been accepted as an associate by the Bishop. He is trying to raise money for a planetarium. Left Honolulu 5 PM.

~~[illegible]~~

Thursday Jan. 31: A good uneventful flight ended at San Francisco at 5:15 1957 (7:15 their time). Plane took bumping (there was inches of snow a day or two ago). Temperature 31°F. when we

ARCHBOLD EXPEDITIONS

OF

THE AMERICAN MUSEUM OF NATURAL HISTORY

5TH ARCHBOLD EXPEDITION TO NEW GUINEA
L. J. BRASS, BOTANIST & LEADER
R. F. PETERSON, ZOOLOGIST

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SAMARAI, PAPUA/NEW GUINEA.

landed. Arriving the day at Kabul for Francis Bristol [illegible] the plane but had a fairly good sleep last night & could have [illegible] Friday. [illegible] travelling bound clans. Plenty of [illegible] on the aircraft & some [illegible] removed from the [illegible] rows & could still lie down [illegible] rows [illegible] real sleep. Plane very [illegible].

Friday Feb [illegible] Left Tan Francisco by TWA at 9:35 [illegible]. Non-stop flight to Dallas [illegible]. Was fast with arrival at 3:15 PM (3:15 this time). Overall flight of 23,000 ft. most of the time. Was held up for perhaps 4 hours over Dallas in a snow storm. Learned when we landed that in the storm a Wallmaster Airline DC6B plane had crashed on Rikers Island, a few hours after, with the loss of over 25 lives.

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